

Eur Maria

CH.

#2×4

1 2 12

St 1.

36.4

1652

.

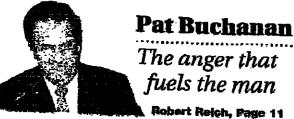
Section 1

Book year . Barel

 $A^{-1}A^{-1}$ 

The same of the sa

# FINANCIAL TIMES



**Political football** Broadcasting victory for Cecci Gori



**EU** integration A reversal of orthodoxy

lan Davidson, Page 10



**FT-IT Review** 

Converging technologies

WEDNESDAY MARCH 6 1996

## fighters from US

World Business Newspaper

The UK Ministry of Defence abandoned a plan to lease US F-16 fighters and will upgrade its existing Tornado fighters to fill a gap until the Eurofighter, being developed by Britain, lialy, Germany and Spain, comes into service. British Aerospace will be given a £125m (\$192.5m) contract to fit improved electronics to the P3 Tornado fighters which will electronics to the F3 Tornado fighters which will allow them to carry the latest short and mediumrange missiles, Page 12

RJR Nabisco tempts shareholders; RJR Nahisco, US tobacco and food group fighting efforts to force it into a break-up, tried to win shareholders' allegiance by announcing a 23 per cent increase in its dividend and a \$100m (£64.9m) share repurchase programme. Page 13

**Tekyo move on bail-out Impasse:** Japan's government offered further talks with the main opposition party about a controversial plan to spend public money on bailing out bankrupt housing loan companies, or jusen. Page 12; Mad hatter enters fray, Page 6; Editorial Comment, Page 11

UK told to reconsider deportation



British home secretary Michael Howard was told by a judge to reconsider the decision to deport Saudi dissident Mohammed al-Massaari (left). The judge ruled that Mr Howard had not

established that Mr Massaari would be safe in

Dominica, the Caribbean island to which he was due to be expelled. The government decided to deport Mr Massaari after pressure from the Saudi government, which had warned that arms deals could be jeopardised if the

**Footsle hits intra-day record;** The FT-SE 100 Index recorded a record intra-day high of 3,7925 in early trading because of hopes of a cut in base rates later this week and a strong performance by Wall Street on Monday. It closed at 3,777.1. London stocks, Page 26; World stocks, Page 30

Islamic dissident remained in Britain.

BA attacks anti-trust move: British Airways attacked Luftbansa of Germany and United Airlines of the US for deciding to apply for anti-trust immunity, saying it was contrary to the spirit of a more competitive airline industry. Page 4; BA to launch internal TV service, Page 7

Bridgestone in grand prix challenge: Bridgestone of Japan, the world's second-largest tyre maker, is to challenge Goodyear's tyre supply monopoly in Formula One grand prix motor racing. Page 4; Jaguar unveils E-type 'successor', Page 7

**Beijing seeks to end hudget deligits:** China hopes to eliminate its budget delicit by 2000, but faces big challenges in boosting revenues and controlling expenditures, finance minister Liu Zhongli told parliament. Page 6

**States face claims over EU laws:** European Union governments must compensate individuals and companies for losses resulting from the states' failure to implement EU laws cerrectly, the European Court of Justice ruled. Page 12

Factory orders may boost US economy: The US Commerce Department said new orders for manufactured goods rose 0.5 per cent in January. The rise indicates that the economy may rebound this spring. Page 5

Kmart plans eastern Europe sale: Troubled US discount store group Kmart looks set to raise a hadly-needed \$117.5m (£76.2m) by selling its 13 stores in the Czech and Slovak republics to UK retailer Tesco. Page 13

GS Helding 5% ahead: CS Holding, financial services group built around Credit Suisse, reported a 5 per cent rise in 1994 net income to SFr1.4bm (\$1.2hn). Page 13; Lex, Page 12

Coles Myer drops break-up plant Coles Myer, Australia's biggest retailer, said it would not to pur-sue moves to break up the company into separatelylisted operating units. Page 13

Services lose their pictures; Britain's Ministry of Defence has "lost" 161 works of art from its inventory of 900. Some items are missing because military personnel often take office decorations with them when they move. Page 7

World Cup Cricket: South Africa had a 160-rup victory over the Netherlands in Rawalpindi, Pakistan. West Indies cricket captain Richie Richardson announced he would quit international cricket altogether after the tournament.

# COLD

Hew York: Comex

STOCK MARKET INDICES

1	Dow Jones and Av	(+2.89) (+6.44)	(Apr)\$304.6	(395.2)
i.	Femore and Fer East	•	Landon:	600 B
	rar <i>i</i> in2001.94	(-13.37) (-8.96)	close\$393.3	(393.8)
	DAX 2,479.03 FT-SE 100	· (+8.5)	■ DOLLAR	
	20,183.87	(+119.99)	New York: Lincial	me
	US LUNCHTHE RATE	3	21.52575 DM1.47645	
	Federal Funds		Fr5.057	
4	2_mth Trees Risk YII3U179		SF11,2905 Y105,055	
•	Loon Road		1 Items   Springer	
٠.	Yek)6.376%		Concios:	(1.5282)
•	S OTHER RATES		E1,5278	(1.4758)
•	ur. 3-mg interbent	(61 <sub>6</sub> %)		(5.0687) (1.2015)
·	France: 10 yr CAT104.8	(105.06)	SF:1.2021 Y105.125	(105.14)
	C	(97.95)		
	1984 10 M 708 38 435	(98.396)	STERLING	(2.2553)
	HORTH SEA OIL (ANS	ps)	DM22594	
:	Brant 15-day (Apr)\$17.70	(17.44)	Tekye \$ close:	Y 105.4
-	DOM: In this hard and an		7.1	77

DMM.00 Lateration Lts 15.00 Claster CR13.00 LEK 220 Germany DAM,00 Listuan 9eh37 Graeca DM00 Lisk Dm1.250 Hang Kong HKS30 Marak BB175 Hungary P1230 Morph LF:75 S.Arabia SR15 P(230 Moracca R 4.75 S. Africa R12.00 Netra60 Spein Pc250 | National Process | National Principle | National Rs75 Nigeria Shk7.90 Norwey U.2200 Oman YS00 Palastan U01.50 Polend DN/18 Listy

© THE FINANCIAL TIMES LIMITED 1996 No 32,926 Week No 10

## UK abandons plan Israel steps up war on Hamas to lease F-16

By Julian Ozanne in Jerusalem, Mark Dennis in Gaza and Patti

Israeli and Palestinian troops intensified their war on the Hamas Islamic movement yesterday amid international efforts to halt the worsening violence and save the Middle East peace pro-

Israel dismissed the offer of a ceasefire ordered by dismayed Hamas political leaders and sent troops into the West Bank to seal the homes of suicide bombers and round up activists. Hamas factions have been responsible for a series of suicide bombings in Israel over the past 10 days which have left 57 people dead. The Israeli government rejected the offer of a ceasefire,

conditional on a halt to action

against Hamas activists, follow-

ceasefire calls by Hamas leaders. Mr Shimon Peres, the Israeli prime minister, who is fighting for his political survival ahead of elections in May, banned Pales-tinians from travelling between self-ruled enclaves, and placed several villages under 24-hour

curfew. "This is the beginning. They had their say, they'll get a response," he said. President Bill Clinton of the US sent bomb-detection equipment and counter-terrorism experts to Israel yesterday as part of a US effort to buttress the country's security and provide reassurance. "The US has always stood with the people of Israel through good times and bad, and we stand with

ing the failure of two previous them today," he said after an emergency meeting of his top for-eign policy advisers.

Troops enter West Bank and villages are put under curfew

Mr Clinton pledged US help to defeat the terrorist campaign and to revive the peace process. US intelligence officials would be sent to Israel to strengthen its anti-terrorist operations.

He said Washington would pursue diplomatic channels to isolate Iran and other countries that support Hamas. On Monday Mr Clinton sent strongly-worded letters to Jordan's King Hussein and Mr Hafez al Assad, the Syrian president, urging them to clamp down on Hamas activities abroad. The US campaign to isolate Hamas abroad received support from Britain and other Euro-

pean Union countries. Mr Michael Heseltine, the UK deputy prime minister, warned Hamas activists living in Britain that the government would not tolerate

support for terrorism.
In Palestinian-ruled Gaza, Mr
Mohamed Dahlan, internal security chief, said the self-rule authority was taking drastic steps to destroy Hamas politi-

cally and militarily. A state of emergency was in force throughout the West Bank and Gaza Strip and security forces had started a manhunt for Israel's list of the most wanted activists. "We are trying to isolate Hamas from the people, control the mosques and stop their financing," said Mr Dahlan, But

warned that Israel's tough security measures could undermine the fragile peace and that collec-tive punishment, such as house demolitions and travel bans,

would breed resentment. Mr Ahmed Qurie, chief Palestinian negotiator, said Israel's decision to give its forces freedom to strike at terrorists inside Palestinian controlled territory "will be a great mistake because it will weaken the Palestinian authority". Israeli officials said yesterday's military steps stopped short of a serious violation of Israeli-Palestinian accords.

### Beijing's actions near Taiwan waters may cause severe disruption to shipping

### US, Japan condemn Chinese missile test plans

By Laura Tyson and Peter Montegnon in Taipei and Tony Walker in Beijing

The US and Japan yesterday condemned plans by China to stage week-long missile tests in waters near Taiwan from Friday. Shipping companies warned of severe disruption to busy sea lanes in the region and Taipei share prices fell sharply.

middle of campaigning for Taiwan's first direct presidential elections, to be held on March 23. It also follows warnings that China might take military action if the election winner pushed for independence. The missile tests will be closer

to Taiwan than previous exercises in July and August last year, and appear designed to emphasise China's ability to blockade Taiwanese ports. The test areas are less than 50km from the ports of Keelung and Kaohsiung, the world's third largest container port.

In Washington, Mr William Perry, US defence secretary, attacked China's decision. "I think it is a very bad mistake on their part to put the impact area so near to Taiwan," he told the Sepate armed services committee. "I deplore that decision on their part and I will express my concern to them [China]."

Premier Li Peng of China said that, while his country had been working for peaceful reunifica-tion, "we shall not undertake to



renounce the use of force". He was speaking in a state of the nation address to the opening session of the National People's Congress, China's parliament.

Mr Lee Teng-hui, Taiwan's popular president who is seeking a second term, sounded a note of defiance. "The question they [China's leaders] are most scared of is Taiwan's democratisation." he said. "If that democratisation is successful, the 1.2hn people on the mainland will think that if Taiwan can choose its own leader, then why can't the main-

The Taiwanese government insisted that the elections would not be disrupted, but the defence ministry put forces on high alert. Shares in Taipei tumbled 1.3 per cent yesterday, with the weighted index down 62.49 to 4.792.74. Mr Lien Chan, prime minister of Taiwan, said the election would not alter the ruling Knomintang party's objective of

achieving eventual unification.
Mr Hiroshi Hashimoto, Japanese Foreign Ministry spokesman, said in Tokyo that the Chinese missile tests would not be "desirable for peace and stabil-

ity" in East Asia. The official Xinhua news agency said that the People's Liberation Army would conduct surface-to-surface missile tests in waters off northern and southern Taiwan from March 8-15. "For the sake of safety, the Chi-

nese government requests the governments of relevant countries to notify ships and aircraft not to enter the said sea areas and air spaces during this period," Xinhua said. Mr Keny Chou, London representative of

container group, said the need to steer clear of the missile tests "would have a big impact on shipping in the strait".

Shipping under threat, Page 6

### **Brussels** tackles Fifa over royalties on footballs

By Patrick Harverson in London and Emma Tucker in Brussels

The European Commission yesterday launched a flying tackle against Fifa, football's powerful governing body, over royalties charged on sales of footballs stamped with its logo.

In dawn raids, offices of national football associations in the UK. France and Denmark were searched by Commission competition inspectors aftercomplaints by the international trade body representing football manufacturers.

Fifa insists on approving all balls used in international matches. From January it has charged a SFr1.50 (\$1.25) fee on each ball stamped with the nec-

essary logo "Fifa-approved". Manufacturers say this extra cost is unfair because their balls were already of sufficient quality. They also fear balls could be just the beginning, with Fifa going on to seek payments for putting its logos on shin pads,

boots and goalkeeping gloves.

Additionally, they argue that
the sale of all footballs could be affected because international matches are showcases for the sport and consumers generally will demand footballs stamped

with the same logo.
"We are taiking about millions of balls," the Commission said. Eight million of the 40m balls produced annually are used in top level matches around the

The Commission believes Fifa may be abusing its dominant position. Although national football associations are not directly involved in the new Fifa ball licinspectors are believed to have raided their offices in the hope of finding correspondence between the associations and Fifa.

The Commission also feared Fifa might have been acting collusively with national football associations in imposing the levy by insisting that balls for club

games carry the logo. Fifa's beadquarters in Zurich remained closed to Commission inspectors yesterday as

> Continued on Page 18 Italian film mogul projects bigger image, Page 2

## First Brazilian rail concession sold to US-led consortium

Part of Brazil's national rail network was sold off yesterday in an auction marking the start of the most ambitious project under the government's privatisation

A 30-year concession to operate 1,621km of track in the centrewest of the country was bought by a consortium led by the Noel Group of the US for R\$62,36m (US\$68.4m), a premium of 3.6 per cent over the minimum price of R\$60.2m. The other members of the con-

sortium are Western Rail Investors, Bank of America International Investment Corporation, Chemical Latin America Equity Associates and DK Partners. Both the Noel Group and Western Rail have made recent acquisitions in US rail services. Mr Varel Freeman, managing

Susiness & Environ.

nternational Nave

World Track Name .

director of Chemical Latin, said the consortium would invest in modernisation to expand freight capacity. "We are extremely eased to have won the concession and are looking forward to helping to modernise Brazil's railway operations," he said. We see tremendous potential for

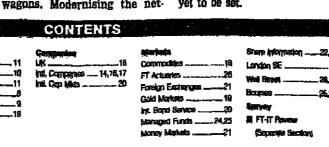
Brazil's railways are used almost exclusively for freight; cheap passenger travel is mostly provided by coach operators. Despite the country's large size. however, only about 7 per cent of freight is transported by rail, with most of the remainder being moved by road.

The whole network - the RFFSA - will be sold in six auctions and is expected to raise a total of about US\$1.4bn. Management of \$2,000km of track will pass into private hands, along with 1,400 locomotives and 36,000 wagons, Modernising the network will require investments of an estimated US\$4bn. The network has suffered badly from underinvestment in recent years 47 per cent of its locomotives are out of service, against an interna-

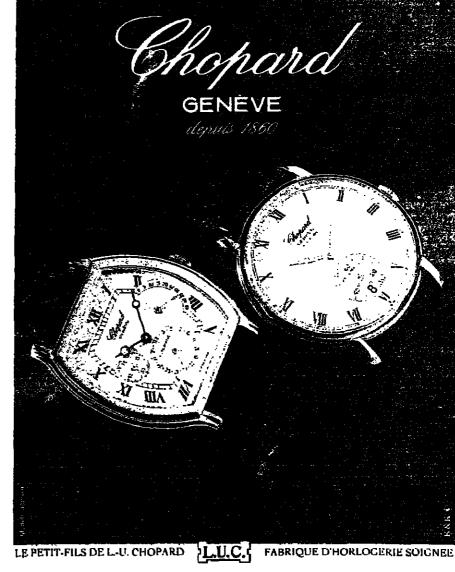
tional average of 17 per cent. The Noel Group consortium beat off a rival bid by a consor-tium of Brazilian companies led by a subsidiary of state mining giant Companhia Vale do Rio Doce. Payment will be made in instalments, with a down payment of 10 per cent.

Payment is in cash, unlike earlier privatisations which allowed payment in domestic debt certificates. These were accepted at face value despite trading at discounts of up to 40 per cent.

Yesterday's sale will be followed on April 15 by the centreeast region, to be sold at a minimum price of R\$316.9m. Other dates and minimum prices have



LONGON - LEEDS - PARIS - FRANKFURT - STOCKHOLM - MACRED - MEW YORK - LOS ANGELES - TOKYO



The timeless lines of mechanical perfection - Our tradition since 1860

The classic "tonnequ" form with automatic movement, power reserve indicator, date, small second hand (Style no. 16/2248). The refined extra-thin model with automatic movement, power reserve up to 4 days, with date and small second hand (Style no. 16/1225). In 18K yellow gold, rose gold or platinum. Available at leading watch-specialists worldwide. For information : Chopard Genève, Tel. 022/782 17 17, Fax 022/782 38 59 - London : Chopard Bontique, 14 New Bond Street, Tel. 0171/409 5140

By David Buchan in Paris

Britain yesterday warned its European Union partners against seeking "sham displays of unity" in EU foreign and security policy, and instead proposed a series of practical measures to improve the preparation, flexibility and rapidity of EU decisions.

In a Paris speech setting out the line Britain will take on foreign and security policies in the intergovernmental conferences, Mr Malcolm Rifkind, the UK foreign secretary, effectively rebuffed the two main initiatives floated by France and Germany last week.

Paris and Bonn called for the Western European Union (WEU) defence organisation to be integrated into the EU, and for a new notion of "construc-tive abstention". Countries objecting to some EU foreign or security policy would sim-ply stand aside and not block others from pursuing it.

Reiterating Britain's opposition to any "subordination" of the WEU to the EU, Mr Rifkind

"constructive abstention could WEU and EU co-ordination be useful where a country supports a proposal but for constitutional or other reasons is unable to participate fully". He cited the case of Germany which, though unable to field peacekeeping troops in Bosnia, provided political and financial

But "constructive absten-tion", while it constituted a welcome admission that foreign or security policies could not be decided by majority ver-dict, would still not resolve real disagreements between EU members, Mr Rifkind said. France, he suggested, would

backing to others' forces.

not have bowed to the anti-nuclear majority within the EU and abstained "constructively" by refraining from, or cutting short, its recent nuclear test "Dissenters cannot surely be expected to give political or financial support to the policies with which they

disagree," said Mr Rifkind. Mr Rifkind focused yesterday on practical ways of improving EU foreign and security policy decisions, just as a year ago also told the French International Relations Institute that practical steps to improve Editorial Comment, page 10

without merging them.

He suggested EU members should put more diplomats and money at the disposal of the Council of Ministers to make it better prepared for, and more responsive, to crises. He also gave qualified endorsement to France's proposal for a new EU foreign policy representative.
"Like France, Britain sees

possible attractions in appointing a single figure to represent the foreign policy of the Union to the outside world," he said, though the person should be the Council's "servant, not its chairman". This hardly constitutes the high-profile appoint-ment that Paris originally had in mind. However, France may be able to use it as a lever on Germany, which is proving reluctant to support the French idea for a new post. In his Paris speech, Mr Rif-kind played on France's recent

nuclear disagreements with many of its EU partners to stress the risks of pushing EU ambitions in foreign and security policy too far.



## Kingmakers of Catalonia put a high price on the PM's chair

By Tom Burns and David White in Madrid

Catalan nationalists yesterday raised the stakes for helping the centre-right Popular party (PP) form a government after its narrow win in the general elections last Sunday by calling for a prior formal recognition of Catalonia's separate identity. The demand, which runs

counter to the PP's guiding principle of no discrimination among Spain's regions, under-lined the acute difficulties facing the centre-right leader, Mr José María Aznar, as he searches for allies to enable him to win a parliamentary vote of confidence next month and become prime minister.

Mr Rodrigo Rato, the PP's parliamentary spokesman who has been appointed by Mr Aznar as chief negotiator with the Catalan nationalists, said that talks on creating a stable majority could take several

These negotiations have displaced discussions Mr Aznar had planned with trade unions - had he gained a clear electoral win – to establish a social pact for wage moderation and iob creation. The political uncertainty that resulted from Sunday's

territory. He praised as "good" is assumed to provide a sub-and well-balanced" a draft stantial measure of self-rule for a formal cessation of hostili-

Armenian forces managed in

1993 to secure control both of

Karabakh, which has proclaimed independence from Azerbaijan, and large swathes

of surrounding territory.

Azeris blamed their defeat on

covert Russian support to the

The OSCE agreed in Decem-

recognising the ultimate

diction of Azerbaijan.

Armenian side.

of a majority in parliament – prompted fresh falls on the Spanish stock market after shares prices tumbled on Mon-day. Madrid's general index lost 4.93 points yesterday, a Analysts forecast the sell-off

would continue in the absence Catalonia is a nation and its

separate identity has to be recognised. The PP has never subscribed to this

The Bank of Spain issued keeping its key intervention

Prior to Sunday's election, expected that the central bank would respond to falling infla-

Unity (CiU) coalition, which has run the Barcelona-based Generalitat, for the past 16 years and strongly stamped its nationalist policies on the area, holds the key to a possible Aznar-led government. The Socialist party, led by

Mr Felipe González, the outgoing prime minister, and other leftwing parties gained 166 seats in parliament. Only the CiU can provide the centreright with a working majority by adding the 16 members it returned to the Madrid parliament to the 156 elected on the PP lists.

The price for CiU support is, however, one that the right-wing in Mr Aznar's party could find impossible to pay. It involves the extension of the home rule process in Catalonia that Madrid-based conservatives feel has already gone far

enough. Mr Pere Esteve, a senior spokesman for the Catalan nationalists, said yesterday that the CiU's fundamental difference with the PP was over their respective understanding of what the "Spanish state" really was.

"Catalonia is a nation and its separate identity has to be recognised," Mr Esteve said. The PP has never subscribed

#### EUROPEAN NEWS DIGEST

## Moscow drops share tender

The Russian government will retain state control of Rybinsk Motors, overturning a plan to tender 37 per cent of the troubled engine manufacturer's shares after a potential foreign buyer withdrew. The decision is a further indication of the change of government thinking about the country's controversial privatisation programme and suggests the state may be planning to play a more active role in supporting

strategic industries.

Mr Alexander Kazakov, the newly-appointed privatisation chief, had already indicated that he would slow Russia's privatisation programme drastically, and would aim to manage state property more effectively. Only five companies out of an original 30 - remained on the privatisation list for this year, Mr Kazakov said.

Rybinsk Motors, one of Russia's biggest manufacturers of aircraft engines, was declared insolvent last year. It has fiercely opposed the government's privatisation plans, claiming that they threaten the country's strategic interests. Gazprom, Russia's giant gas monopoly, has expressed an interest in the plant, believing its technology could be adapted to produce gas turbines.

#### German health system in red

Germany's health insurance system ended last year with a DM7bn (\$4.7bn) deficit last year, after a DM2.4bn surplus in 1994, prompting fears that contributions may have to rise unless savings are made.

Mr Horst Seehofer, the health minister, warned that contributions, divided equally between employers and employees, could jump by one percentage point to 14.4 per cent of earnings unless agreement is reached between the federal government and the Lander (states) on disputed plans to limit the costs of hospital care.

Last year's deficit was lower than the DM10bn-DM12bn recently forecast by health insurance officials. Mr Seehofer said the move into deficit slowed markedly in the final three months, with the 1995 shortfall in western Germany dropping to DM4.15bn from DM5.8bn at the end of September. However, the deficit in eastern Germany grew to DM2.85bn from DM1.7bn in the first three quarters.

Peter Norman, Bon.

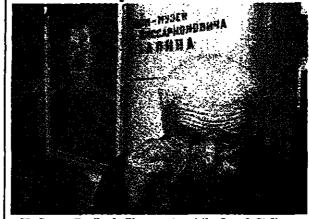
#### Poland's pension plans

Poland's planned new pension funds will be endowed with only minority stakes in state owned companies under the government's social security system reform plan, according to Mr Wieslaw Kaczmarek, the privatisation minister. "Funds' stakes will be passive ones," he said yesterday, saying that only financially sound companies would be earmarked to assist the social security reforms.

The finance and labour ministers have promised to prepare a bill on the new pension funds during the first six months of this year, and the outline of the government's social security reform awaits a debate in parliament. Under the scheme, the funds, contributions to which would

be tax-deductible, would relieve the government of part of the burden of subsidising pensions and disability benefits, which consume more than 20 per cent of the national budget each

#### Stalin fondly remembered



Mr Georgy Buzikashvili, a curator at the Joseph Stalin eum in Gori. Georgia. the former Soviet dictator's birthplace, sheds a tear on the 43rd anniversary of his death. More than 200 Georgians staged a rally to commemorate the anniversary of a man responsible for the murder of millions of Soviet citizens. "As long as Gori still exists, Stalin will live," said one octogenarian. "He was a great man, a kind Peter Graff, Tiblisi. Photo: AP. man. He had no minuses."

#### Russian arms exports soar

Russia exported \$3bn worth of arms last year, an 80 per cent increase over the previous year. Mr Oleg Soskovets, first deputy prime minister, said yesterday. Mr Soskovets, speaking at a meeting of the government's council for co-operation in military technologies, said that revamping the country's military marketing systems was paying off. He told the council that arms sales were a good source of

hard currency for Russia. He said 75 per cent of the arms deals were in cash, from 51 countries. Officials have already said that Russia hopes to sell as much as \$3.5bn worth of arms this

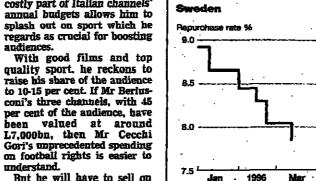
#### France to aid clothing industry The French government yesterday announced a FFr2bn

(\$400m) a year aid plan for textile, clothing and shoe companies, hard hit by cheap imports especially from Italy. But the European Commission signalled its opposition in principle to such support, and warned that the plan would need its approval. The plan would reduce employers' social security charges

for lower-paid workers and increase the government contribution towards the cost of putting employees on part-time work. In return, companies would have to commit themselves to maintaining jobs and to hiring more young people. But the Commission said it preferred general ob-creation schemes to sectoral ones.

ECONOMIC WATCH

#### Key interest rate cut in Sweden



ros: FT Entel

European monetary union in 1997 despite slower economic growth this year, Mr Göran Persson, the finance minister. predicted yesterday. His forecast came as the central bank, the Riksbank, lowered its key interest rate for the fifth time this year. The cut lowers the bank's repurchase rate to 7.85 per cent from 8.05 per cent, a fall of 1.06 percentage points over two months. Mr Persson, who is set to take over as prime minister from Mr Ingvar Carlsson in two weeks' time. said the finance ministry

Sweden will qualify for

would soon lower its forecast for growth this year from its most recent prediction of 2.7 per cent. Independent forecasts set the figure at less than 2 per cent. With inflation under control, the authorities are keen to stimulate growth to tackle high unemployment. Mr Persson said he expected further Christopher Brown-Humes, Stockholm

## **Bundeswehr finds itself** short of conscripts

340,000-strong Bundeswehr, Germany's armed forces, is likely to have "con-siderable problems" finding enough conscripts in future because a soaring number of young people prefer alternative forms of public service, Ms Claire Marienfeld, the Bundeswehr's ombudswoman, says.

A record number of young male Germans - 160,659 - refused to serve 10 months in the armed forces last year, choosing to work in such alternatives as hospitals, even though the term is 13 months. The Bundeswehr could only fill its ranks by calling up older recruits who had not yet done their 10-month service, according to Ms Marienfeld's annual

Her warnings are likely to fuel discussions about the Bundeswehr's future following its parish help that bordered

opt for a professional rather than a conscript army. Ms Marienfeld insisted Germany stick to military conscription, popularly seen as "citizens in uniform" but that more should be done to improve the image of

the armed forces

She said the Bundeswehr should appear in school books which now make no mention of the armed forces. Soldiers should be encouraged to wear uniform more often, and exercise in the open countryside. not just on military bases. "A Bundeswehr which makes no noise at all is no good," she told a press conference.

Young people had an unnec-

essarily negative image of the Bundeswehr. Ms Marienfeld said she had begun talks with a number of churches after it emerged that one church had offered all the young people in

Caspian Pressure is mounting on

Armenia and Azerbaijan to set

tle their bitter dispute over the

enclave of Nagorno-Karabakh

so as to clear the way for a

broader resolution of energy

and transport issues in the

Mr Yevgeny Primakov, Rus-

sia's foreign minister, has

thrown Moscow's weight

behind a high-profile effort by the 53-nation Organisation for

strategically vital region.

Despite the numbers opting out, the Bundeswehr's standing has improved partly because German soldiers had a greater role in international peacekeeping such as the mission in former Yugoslavia.

The report also highlights the problems of German sol-diers serving in multinational units such as the Strasbourgbased five nation Eurocorps. Because French law forbids German soldiers to be armed in France, Germans doing sentry duty at the Strasbourg bar-

by Mr Flavio Cotti. the Swiss

foreign minister, whose coun-

try occupies the OSCE's rota-

Mr Primakov, in the latest

sign that Russia is edging

away from its hitherto pro-

Armenian position, called the

plan a "compromise between

fact that both sides were

"sticking to maximalist

ting presidency.

refuse armed service.

The ruling coalition last

week approved a draft bill to fine or to jail for up to three years those who insult the army. The bill follows conservative outrage at court decisions endorsing anti-war protesters' right to use the slogan "Soldiers are murderers".

racks were armed with sticks.

of any clear signs of a new its own negative view of the political stalemate by

rate unchanged at 8.75 per cent yesterday at its 10-day auction for bank certificates. the markets had confidently

Up to now, sticking points

have included the status of the

Lachin corridor, which links

Karabakh with Armenia

proper, and the strategic town

of Shusha, the highest point of

Azerbaijan has said it would accept a multinational force in

Lachin, with a mandate to

stem the flow of armaments to

the Karabakh Armenians, but

venture, but they have since

the mountainous enclave.

Oil may smooth way for Karabakh peace

is assumed to provide a sub- facto ceasefire was turned into nessmen have added their voice to calls for an early setpeace plan which was pres-ented to both sides this week enclave of Karabakh, while proved unexpectedly elusive. peace in Karabakh is a pre-condition for the establishment of Ceyhan in southern Turkey as the main terminal for the oil which will soon start flowing from the Caspian Sea in huge

quantities A settlement of the conflict in which at least 20,000 people have been killed, is needed both to inspire confidence in the western companies which would build and finance the pipeline, and because the war zone itself is one of the most

#### Security and Co-operation in ber 1994 to deploy a multina-tional peacekeeping force in positions. not the continuation of *de facto* Europe to settle one of the Details of the OSCE plan Armenian control. Turkish officials and busi-Italian film mogul projects bigger image

The Rome apartment of Vittorio Cecchi Gori doubles as a cinema, entirely in keeping with his status as Italy's biggest film producer and distributor.

The partition wall with the dining room serves as a screen; the black velvet divans are turned away from a magnificent view of the ancient city to become front stalls; and from behind a desk a Tibetan

THE FINANCIAL TIMES
Published by The Financial Times (Europei GmbH, Nichelungenplatz.), 69:18 Frankfurt im Main, Germany Telephone ++49
for 156 559, Fax ++29 by 5th 481 Represented in Frankfurt by J. Walter Brand,
Wilhelm J. Brüssel, Cohn A. Kennard is
Geschäfestähner and in London by David
C.M. Rell, Charman, and Alan C. Miller,
Deputy Charman, and Alan C. Miller,
Deputy Charman, and Alan C. Miller,
Deputy Charman Shareholders of the
Francial Times (Europe) Lid, London and
F.T. (German) Advertising) Ltd, London
Shareholder of the above mentioned two
companies is The Financial Times Limited,
Naraber One Senthwark Bridge, London
SEI 9HL
GERMANY:

SEI 9HL
GERMAN':
Respensible for Advertising, Colin A Kennard, Printer: Hürriyer International
GmbH, Admiral-Rosendahl-Straue &,
63263 Neu-Joenburg 18SN 0174 7363.
Responsible Editor Richard Lambert, 60
The Innatual Times Limited, Number One
Scathwark Bridge, London SEI 9HL
FRANCE:
Publishing Director: P. Marayigha, 42 RueLa Bodise, 75048 PARIS Telephone (01)
376-8234. Fax (01) 376-8235 Printer
S.A. Nord Eclart, 1571; Rue de Care,
F-54100 Rouhan Cedex J Editor Richard
Lambert, 18SN 1145-2753. Commission
Partiare, No. 6780810
SWEDEN:

SWEDEN: Repressible Publisher Hugh Camago 468 615 6685, Printer: AB Kwallstidiningen Expressea, PO Box 6007, \$-550 66. Expressed, 10 and 10 lookering.

© The Financial Times Limited 1996
Editor Richard Lambert, one The Financial Times Limited, Number One Southwark Bridge, London SEI 9HL

L270bn (£113m) turnover. But he has big ambitions

On his own admission he is riding the crest of a wave. "This is a wonderful period for me," he confessed last weekend after winning the TV football rights. "My heart is set on winning the Oscar for Il Postino which will be decided on March 25.... Then I've won the football on TV: my own television stations are taking off and Fiorentina [the football

the Italian press.

scroll painting lowers auto-matically to reveal a projector. The stocky Mr Cecchi Gori, 53, is responsible for producing three-quarters of all films made in Italy, thanks to a business built by his father, Mario, who died in 1993. Films are his first passion and the core of the Cecchi Gori group's

well outside the film business. This he has just demonstrated by scooping the television rights to Italy's league soccer for the next three years for L639bn from beneath the nose of the Rai state broadcaster. Football, he hopes, will secure a good audience share for Telemontecarlo and Videomusic. two small channels he bought last year.

club he owns] is in great

form.... He has always lived so much in his father's shadow that it has only been possible for outsiders to measure the size of his ambition in the past two years. The evidence has gone surprisingly unrecognised in

He acquired Fiorentina in



Vittorio Cecchi Gori: ambitions well outside the film business

1990 - an essential high profile possession of Italian magnates; he is married to Rita Rusic, a platinum blond star-let (whose business judgment he relies upon heavily); and he became a senator for the former christian democrat Popu-

lar party (PPI) in 1994. When he bought his televi-sion stations last year, the Penta, a joint film/television

potential conflict of interest with his being a senator was never raised. In the case of former premier Mr Silvio Berlusconi, the conflict of interest with his Fininvest media empire became an important issue the moment he entered politics. The two men started

fallen out in a big way. It goes without saying that some of the harsbest attacks on Mr Cecchi Gori's football coup have come from the Ber-lusconi camp (which also lost out in the bidding). They accuse Mr Cecchi Gori of backing the political ambitions of Mr Lamberto Dini, the caretaker prime minister, and of being protected by the government. He has also been accused of using his own channels to defend his acquisition of the soccer rights. And a consumers' group has complained that, as owner of a major league team, Mr Cecchi Gori was both judge and beneficlary of the rights auction that could be worth L1,251bn over the next three seasons.

The 38 clubs in the football ague appear to have made their choice on cash alone, opting for the highest sum on offer. Mr Cecchi Gori's two channels cover only 75 per cent of the mainland and islands, and accounted for only 2.7 per cent of the total television advertising revenues of L3,555bn last year. ideomusic, which specialises in youth programmes and music, and Telemontecarlo, a general channel, generated total income of less than L150bn in 1994.

The Rai claims such small fry lack the technical and financial resources to serve the Italian public with their most popular sports fare. Mr Cecchi Gori sees matters

differently. He has acquired two television concessions cheaply: he paid little more than L150bn for the loss-making channels, and assumed some L100bn more in debt, pushing group indebtedness to L220bn. Most of the Telemontecarlo purchase was funded with a L60bn bank loan guaranteed by the station's shares and financed through cash flow from his group controlled through the family holding Finma which made a net profit of L25bn in 1994. To raise his share of the

market, Mr Cecchi Gori is

exploiting his film library, the biggest in Italy. Not needing to invest in what is normally a

costly part of Italian channels annual budgets allows him to splash out on sport which he regards as crucial for boosting With good films and top quality sport, he reckons to raise his share of the audience to 10-15 per cent. If Mr Berlus-coni's three channels, with 45 per cent of the audience, have been valued at around

Gori's unprecedented spending on football rights is easier to understand But he will have to sell on some local rights, ensure national territory is covered and probably tie up a deal with a foreign partner. Otherwise he will be vulnerable in a market that he is helping to make more competitive.

Robert Graham

1.8 1440年 新華 2.11

FIDNESDAY MARCHINE

3

## French railways report angers unions

By Andrew Jack In Paris

One of the unions behind last year's French train strikes yesterday attacked a government report on the future of the railway system for its "liberal vision of free competition. social sacrifices and deregu-

The Communist-backed CGT. with many railway workers among its members, helped lead the demonstrations which paralysed the country last November and December. It accused the report of "forget-

which raised questions about "uncertainties" in the document - suggests there will be fierce debate in the run-up to the signing of a new contract this summer between the SNCF railway company and

the government. The conclusions of a working party set up by the govern-ment and chaired by Mr Claude Martinand, head of economic and international affairs at the transport ministry, were published on Monday. Summarised as "20 ouestions

more moderate CFDT union, cussions over the coming months. While offering no answers, they are clearly pointing towards more market-driven

> The subject is particularly topical because the state-controlled SNCF issued its 1995 results only at the end of last month. They showed a loss of FFr16.6bn (\$3.3bn), more than twice the 1994 level, with turnover down 3.9 per cent and gross operating margins 20 per cent lower than in the previous

solutions in the future.

The SNCF was due to agree

Its reaction - and that of the be at the centre of intense dis- with the government last December a new contract setting out its objectives for the coming years. But ministers' attempts last November to remove the early retirement

rights of train drivers as part

of its social security reforms confused the debate, and the contract was postponed. Ms Anne-Marie Couderc, junior minister for transport, stressed in a recent interview that the Martinand report would form the basis for discussions ahead of the new con-

tract, in accordance with union

demands and a decision by Mr

Jean Mattéoli, the negotiator

strikes last year.

The report says the strength of the railways in the nineteenth century has declined in the face of the growth of car travel, the rise of individualism and the evolution of soci-It questions the relationship

between the state, regional authorities and the SNCF, and asks whether there should be greater autonomy at the local level. It suggests it may be necessary to define a maximum grant - such as FFr1 per passenger-kilometre - for expendi-

It discusses reforms to pricing, corporate organisation and performance indicators such as service quality, financial results and productivity. It also calls for consideration of ways ensure that current high levels of debt are avoided in future.

The report suggests that the French railway system is in better shape than many of its counterparts in other countries, but that in absolute terms it remains worrying, It points out that despite heavy investment usage is declining and operating deficits are

## Domestic film industry attracts growing loyalty

By Andrew Jack in Paris

The French were more loyal to their own country's films in 1995 than during any year since 1990, according to figures released by the ministry of culture yesterday.

Nearly 46m cinema-goers last year out of a total of 130m went to see French films, giving its own productions 35.4 per cent of the market, compared with just 28.2 per cent in

That came against a backdrop of

cinema attendances up 4.1 per cent, and cinema receipts up 5.1 per cent to FFr4.5bn (\$880m), despite a modest rise in the average ticket price from FFr34.46 in 1994 to FFr34.77 last

Seven of the 15 most widely-viewed films during the year were French, while the share of US films dropped from 60.5 per cent to 54.2 per cent. The previous highest market share held by French films was 37.5 per

cent in 1990. The news will boost the country's film industry, which has long been frustrated by the dominance of US films, despite its small share of the

Mr Philippe Douste-Blazy, minister of culture, said much of the success was due to comedies, including Les Anges Gardiens, Gaucon Maudit, Les Trois Frères and Le Bonheur est dans

He also highlighted the popularity of films such as Le Hussard sur le Toit, Elisa and La Haine, a portrayal of life in a troubled Parisian suburb

which has received critical acclaim in France and elsewhere.

France provides financial incentives to help the national film-making industry, including redistribution of part of the income from cinema tickets and a requirement for television companies to fund and broadcast

the country's own films. It has been at the forefront of the battle to introduce quotas elsewhere in Europe, and has also helped to support the country's cinemas by restricting the days on which televithey do not conflict with the days when new films are released.

Recognising that the French language limits its attraction in Englishspeaking and other foreign markets, it is discussing more widespread use of dubbing. Subtitled films only ever

reach a minority audience. The national figures hide considerable regional variations. While cinema-going has risen outside Paris, the nation's capital has witnessed a decline since 1990.

## Michael Wong had the urge to be compacted.



Michael Wong of Creative Pacific had a vision. A computer work station that squeezed component space down to nothing while, at the same time, increasing productivity.

So he went to Taiwan where an interesting company, Plustek, showed him its newest idea: a color fax machine, color photo copier, scanner and OCR, all designed in a one-button unit no larger than a shoe box.

Creative Pacific decided to sell it in Australia, but in 30 other countries it is marketed as the Scanfx, the world's most complete multi-function scanner.

Scanfx is a perfect example why companies today like IBM, Hewlett Packard, Apple Computer and AT&T are heading for Taiwan. The attraction for them is INNOVALUE: innovation in design and manufacturing techniques which gives added-value to leading edge products.

Innovalue produced the first low-cost carbon fiber bicycle. And a new sophisticated PC video and audio editor for less than four hundred dollars.

In Taiwan, you'll find Innovalue in so many product areas. Perhaps yours.

If you're interested, reach us on the Internet. It is not just products, but ideas and especially value that are VERY WELL MADE IN TAIWAN.





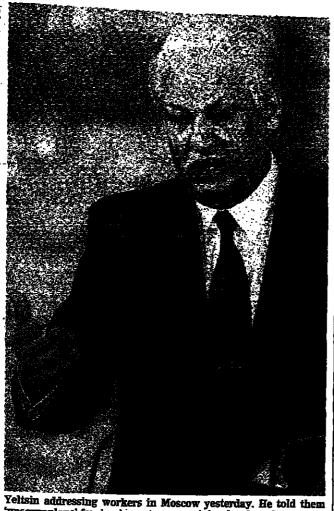
carry this Symbol of Excellence.

ewarded annually by an expert panel of

The state of the s

Internet http://www.tptaiwan.org.tw

Plustek's versatile Scanfx workhorse occupies very little space next to another National Award winner, Twinhead's Slim Note-890CD computer.



unscrupulous' foreign imports were ruining local producers Pout

## Vote-hungry Yeltsin talks tough on tariffs

resident Boris Yeltsin is nothing if not flexible. Yesterday he provided a classic example of a politician's ideological ambivalence when he promised to protect Russia's domestic manufacturers while claiming credit for the undoubted benefits his liberalising trade policies have pro-

Mr Yeltsin's decision to bang the protectionist trade drum: appears part of a campaign to turn up the volume of nationalist rhetoric ahead of June's presidential election.

In an address to industrial workers in Moscow, an agi-"fence of anti-dumping mea- own land. sures" blocking Russian textiles from the European market and conceded his government had allowed stafied freedom" to

quality foreign imports. We cannot continue to put up with a situation where our wn producers are ruined and foreign manufacturers, includ-

#### John Thornhill examines the import of the growing protectionist mood in Moscow

ing unscrupulous ones, are encouraged," he said.

Mr Yeltsin's latest outburst

confirms a growing protectionist mood in Moscow. The agriculture ministry has threatened a permanent ban on US chicken imports, saying their poor quality endangers Russians' health. The claim has provoked outrage from US congressmen - and incredulity among Russian consumers,

reared on mangy domestic Moreover, Mr Vladimir Pan-skov, finance minister, last week called for a 20 per cent average increase in import tariffs on a range of foreign goods, including cars and alcohol, to help rectify a budget shortfall.

That prompted a rebuke from European Union officials who warned that any such move could jeopardise a future free trade pact, and dash Russia's ambitions of joining the World Trade Organisation.

But, as the political heat in Moscow rises, it is becoming increasingly difficult to distinguish between pre-election tubthumping, crude protectionism, and legitimate economic and public policy concerns.

Despite the worries in western capitals, it would be premature to suggest Russia intends to abandon the liberalised trade regime it embraced in 1992 following 70 years of

economic autarky. Yet Mr Yeltsin is doubtless mindful of the political juice that can be squeezed from attacking cheap foreign imports and protecting domes-

tic producers. The most visible consequence of Russia's trade liberalisation has been to encourage an influx of consumer goods rarely seen in Soviet times. A new generation of rich Russians now go shopping in their German cars to buy Dutch vegetables which they eat in front of their Japanese

televisions.

Even the less well-off buy Swiss chocolate bars, Vietnamese T-shirts, and Turkish leather jackets from the thousands of informal traders who have colonised many street corners.

But many Russians already take the availability of these goods for granted and appear affronted by displays of conspicuous consumption. A chorus of communists,

nationalists, and Orthodox church leaders has been complaining about the deluge of western consumer product advertising - rarely in Cyrillic workers in Moscow, an agi-script - saying it makes them tated Mr Yeltsin denounced a feel like foreigners in their Such sentiments have been

exploited by some of Russia's industrialists to justify protectionism. Intense lobbying from producers, for example, led to the government imposing heavy tax increases on foreign cars, more than doubling the price of many imports.

But, as yet, there is little evidence that the biggest Russian manufacturer, Avtovaz, maker of the Lada car, has benefited from this breathing space. Rather, it appears simply to have pushed up its own prices, postponing the day of reckoning when it has to tackle its unwieldy cost base.

But in some areas of Russia's trade policy, there is undoubtedly scope for a more active government role. Even some enthusiastic free market economists argue trade liberalisation has gone too far in some

If you take the case of alcohol then there is clearly a good argument for raising import tariffs," says Mr Anders Aslund, a former adviser to the Russian government who now works at the Carnegie Endowment for International Peace. "The influx of cheap vodka has messed up Russia's taxation system and punished their own producers, which makes no

Perhaps the most startling point about Russia's trade, somewhat lost in the political clamour, is the extent to which liberalisation has already begun to transform large sectors of the Russian economy.

any Russian manu facturers appear to be moving themselves towards the world market with astonishing speed. Last year, Russian exports to countries outside the Commonwealth of Independent States rose 25 per cent to \$61.3bn equivalent to \$500 a head.

The bulk of these exports is still accounted for by unprocessed raw materials and oil and gas but some of the fastest-growing sectors are aircraft, plastics, electrical and mechanical machinery and furniture, suggesting some Russian manufacturers are successfully adapting to the new

market conditions Despite the surge in imports, Russia has been running a comfortable trade surplus for the past few years and has been opening up new markets in the fast-growing countries of

the far East. The chief threat now is that the rapid real appreciation of the rouble against the US dollar since last summer will take the steam out of this export growth and lower the relative cost of imports, although even that would help Russian exporters retool.

## BA attacks US-German anti-trust move

Acrospace Correspondent

John Burton in Secul

Mr. John Major, Britain's prime

minister, yesterday stepped up his pitch for investment in the

UK by the emerging economies of east Asia, and announced a

series of agreements between British and South Korean com-

panies totalling around \$90m.

Mr Major met President Kim

Young Sam of South Korea and attended trade promotions.

of Korean Industry, the UK prime minister said his coun-

try's low labour costs had

enhanced its position as the

favoured country for Asian

investment in the European Union. The UK has now over-

taken Germany, securing 40

per cent of Korean investment in Europe.

"The economic reforms which I have described have

created an enterprise economy

The enterprise theme is cen-tral to the Conservatives' pre-

election drive, emphasising the

need for increasing competi-

tiveness with the so-called

"tiger economies" and pointing

out what the UK government

sees as restrictive practices by

three further South Korean

companies had chosen to set

up operations in the UK. Fine

Mr Major announced that

many EU neighbours.

in the UK," Mr Major said.

In a speech to the Federation

Concluding an Asian tour,

British Airways yesterday attacked the decision by Lufthansa of Germany and United Airlines of the US to apply for anti-trust immunity, saying it was contrary to the spirit of a more competitive airline industry.

Lufthansa and United have applied to the US authorities for immunity as part of the recently concluded "open skies" agreement between the US and Germany. US acceptance would allow the two airlines to co-ordinate their operations more closely.

Major steps up

Electromechanics,

The new investment, which takes the number of South Korean companies in Britain to

19, will be worth £2.5m (\$3.85m)

and create 184 jobs. Mr Major also took part in

signing ceremonies for four

deals between British and

South Korean companies: Brit-

ish Nuclear Fuels will transfer

to Hanjung the technology for

making secure storage casks

for spent nuclear fuel in a deal

worth around \$50m; GKN

Automotive, a subsidiary of

the GKN group, is to form a

joint venture with Hanwha Machinery for the assembly

and manufacture of constant

velocity joints and drive shafts,

in a deal worth 522m.

The other agreements included the supply of engineering and equipment for a

plate mill by Davy McKee, part

of Trafalgar House, for Dong-kuk Steel, and snow-making

equipment by a consortium of

five UK companies for Daewoo

The UK could see considera-

bly larger Korean investment

in the near future, with LG

Semicon and Hyundai Elec-

tronics both considering estab-

lishing semiconductor plants

for an indoor ski centre.

at more than \$1bn each.

pitch for east

Mr Robert Ayling, BA chief executive, said: "What Luithansa wants to do is reduce the level of competition by relaxing the anti-trust laws." He said he would be interested to see how the US departments of justice and transportation dealt with Lufthansa and United's applicat

While the Transportation Department had been closely involved in the open skies agreement, Mr Ayling said the Justice Department was required to promote competition. He said: "I don't think the result of this application is in any sense a certainty.

The US-German agreement follows open skies accords between the US and nine other European countries. The US has said it hoped the agreement with Germany would put pres-sure on the UK to give US carriers greater access to London's Heathrow airport.

Negotiations between the US and the UK broke down last year when the US rejected as inadequate a British proposal to allow some extra US flights to Heathrow.

Mr Ayling said, however, that the US-German pact would make no difference to the UK's position. He said:

"We have never had the slightest difficulty competing with Lufthansa." He said the number of passengers flying from Germany to London and then to North America had increased by more than 10 per cent over the past year. BA expected additional

growth this year. He saw no reason to amend the existing US-UK aviation treaty, "From our point of view, there doesn't seem to be an immediate justification for raising the issue again. The United Kingdom is in a strong negotiating position with the US in that we are parties to a liberal bilateral agree-

ment, or as liberal as it can be, given that Heathrow is a full airport." The current treaty, known as Bermuda II, had resulted in strong competition in the UK-US market and the lowest fares in history. "You might say it is a model agreement." Mr

Ayling said. There was a limit to the number of flights that could be made to and from Heathrow. It was important that Heathrow remained "identified as part of the United Kingdom's national interest rather than that of the US or other countries." See BA staff TV, UK News

European increase of 8.3% last year with 'striking' rise in network markets

## IT growth strongest for 5 years

Asia investment The European information and communications technology market grew by 8.3 per cent last year to Ecu304bn (\$380bn), its strongest growth for five years, according to figures pub-Kwang Electro Mechanics and Poong Jeon will supply parts to Samsung, the electronics lished today by the Frankfurtbased European Information Technology Observatory. Core IT products and sergiant which has pledged \$2bn total investment in the UK.

vices such as office equipment and hardware maintenance and support contributed Ecul41bn to the total, with telecommunications equipment and services accounting for the remaining Ecu162bn. "The most striking story of

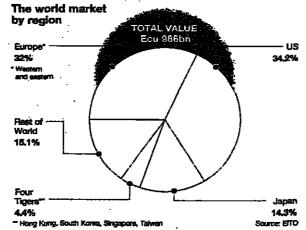
1995 has been the growth in the network market, 1995 has been the year of the network," says the Observatory's report. In particular the report notes that "the Internet has jumped

the quantum leap that separates the era of traditional, simply personal usage of infor-mation technology, to a new era when everybody will use IT in connection with a network".

Europe's share of the worldwide information and communications technology market, at 32 per cent, remained similar to previous years, although the sustained strength of the US market continued to be a striking feature.

In Europe, improving corporate profit margins were being reflected in strong growth in investment in plant, machinery and IT. Among individual countries

there was no clear correlation between gross domestic prodinformation and communications technology



uct growth rates and the strength of the IT market. The report suggests acceptance of client/server computing and the development of the consumer market are more impor-

For example Sweden and Germany both experienced below-average real GDP growth rates, but IT markets in both countries are showing exceptional expansion. In contrast, despite an exceptionally high 6.5 per cent real GDP growth rate, IT investment in Ireland remains "rather lacklustre".

Among individual markets the German IT market, which grew by 7.4 per cent last year and is expected to grow by 7.1 per cent this year, continues to be driven by PC sales.

Germany is the biggest IT market in Europe with a 28.4 per cent share of the total. The French market "started to come back to life in 1995", but growth at 5.4 per cent remained among the weakest

in Europe The UK market "continued to support the total European market with a solid 8.9 per cent expansion", although growth was expected to moderate to 7.4 per cent this year. The real rise in the UK IT software and services sector could be attributed to outsourcing. Overall, IT hardware revenues increased by 8.8 per cent last year, up from 5.4 per cent the previous year, while soft-

outperformed the overall IT market, growing by 8.3 per cent while network services such as electronic data interchange and electronic mail grew by 15.7 per cent and were expected to remain among the fastest growing segments of the market.

The western European telecommunications equipment and services market grew by 8.7 per cent last year, and is forecast to grow by 9.8 per cent

As with IT, the German telecoms market is the largest in Europe, accounting for 26.5 per cent of the total and growing by 9 per cent last year. The UK market, one of the

most liberalised in Europe, grew by 6.7 per cent last year. "With 112 Internet service providers connecting about 800,000 people, people in the UK are very active users of the Internet," the report

The market for telecom services in Europe totalled Ecu132bn last year and grew by 10.1 per cent, driven in particular by the rapid expansion of mobile

Observatory predicts that the total European information and communications technology market will grow to Ecu373bn by 1997, by which time the world market will be worth Ecul,065bn. EITO 1996, published by the

European Information Technology Office, 069 6603-1530. ware sales, driven by packaged See Information Technology products, rose by 8.9 per

WORLD TRADE NEWS DIGEST

## Grand prix tyre challenge

Bridgestone of Japan, the world's second-largest tyre maker, is to challenge Goodyear's tyre supply monopoly in Formula One grand prix motor racing, in its strategy to capture world tyre grann prix motor racing, in its strategy to capture worth tyre market leadership. Bridgestone claims an 18 per cent share of the \$60bn-a-year world tyre market. This is around 1 per cent less than Groupe Michelin, the world market leader. Bridgestone intends to lift its share to 20 per cent over the next several years. Goodyear, demoted from world tyre market leadership at the end of the 1980s by Groupe Michelin and Bridgestone, and

with an estimated 17 per cent share of the market, has been the sole supplier of grand prix teams for around a decade. Bridgestone has become one of the most committed among tyre makers of using motor sport as a marketing tool. Last season it took Firestone, the US tyre maker acquired by Bridgestone in the 1980s, back into IndyCar racing - the US equivalent of grand prix - to restore the brand's image among Americans and Canadians.

Grand prix's attraction for Bridgestone is that races are beamed by TV to more than 100 countries, with claimed beamed by TV to more than 100 countries, with claimed audiences of 100m-plus. These figures are matched only by the Olympic Games and soccer's World Cup: but the latter are held only once every four years compared with 16 times a year John Griffiths, London

#### UK support for Russia loans

The UK Export Credits Guarantee Department (ECGD) yesterday announced support for two further export credit loans for Russia. ECGD is providing repayment guarantees for the loans, worth \$9m and £6m, to help finance contracts

the idals, with some Lifts and APV respectively.

The loans, arranged by Samuel Montagu on behalf of Midland Bank, are to Russia's Vnesheconombank - the Russian Bank for Foreign Economic Affairs.

Kone Lifts, owned by Kone of Finland, has been given esponsibility by Moscow's Lomonosov State University to design, supply and supervise the commissioning of 52 replacement elevators at the university. APV will be installing and commissioning a production line in St Petersburg to produce dairy-based baby food. Foreign Staff, Lo

#### WTO sets dispute panels

The World Trade Organisation yesterday set up two independent dispute panels to hear complaints from Costa Rica against the US on textiles and from the Philippines gainst Brazil on desiccated coconut.

Costa Rica is challenging quotas imposed last year on its exports of underwear to the US. The WTO's textiles accord, which requires a 10-year phase-out of import curbs, allows new restrictions only if imports are causing or threatening "serious

damage" to the domestic industry. In the other dispute the Philippines argues that anti-subsidy duties of more than 120 per cent imposed by Brazil on its exports of desiccated coconut are not justified under fair trade rules. The WTO's dispute settlement body has set up 11 canels so far, out of the 29 complaints brought to the world rade watchdog since its creation last year. Four disputes have Frances Williams, Genevo been officially withdrawn.

Saudi Aramco is buying three 29-passenger Dash 8 turbo prop aircraft worth \$30m from Bombardier, the Canadian aerospace and transit group, for delivery late this year. They are designed for short gravel and sand airstrips and to operate Robert Gibbens, Montreal in high temperatures.

**NEWS:** INTERNATIONAL

## Hamas threatened by its own divisions | African nations

The military wing is acting against the goals of the political wing, writes Julian Ozanne

ies has brought to a head a crisis inside the extremist Hamas movement and sparked an international campaign to crush the organisation's external financial life-

They have also revealed that. like the relationship between the Irish Republican Army and its political wing, Sinn Fein, the military wing of Hamas operates independently and often contrary to the immediate goals of the political wing.

The political leaders of Hamas, which opposes peace with Israel, were yesterday desperately seeking to impose their authority on the movement's underground military wings to safeguard the survival of Hamas as a political, religious and social organisation.

Dismayed senior Hamas political figures condemned the suicide bombings which claimed at least 57 lives in eight days and were considering issuing a fatwa, or religrous edict, against further attacks. The unprecedented step marked the concern among the political leadership that they have lost control over the Izz cl-Deen al-Qassam Brigades, Hamas' military

The Gaza-based Qassam yes-

Israel agreed not to attack its activists.

more extremist factions based in the West Bank would obey the ceasefire, the third in the past 10 days. The last truce, declared by Qassam on Sunday was broken 24 hours later by extremist cells in the West Bank who carried out Monday's suicide bombing in the heart of commercial Tel Aviv.

by clergyman Sheikh Ahmed Yassin as an offshoot of the Moslem Brotherhood, a Pan Arab Islamist movement. It originally had the support of Israel as a counterweight to Mr Yassir Arafat's Palestine Liberation Organisation, but soon joined the intifada, or uprising against Israel, and became the most violent Palestinian fac-

and went underground.

international efforts, led by terday heeded the political Israel and the US to strike

The spate of bombings in leadership and announced a against Hamas' activities ments in the Arab world, much Israel by Islamist fanat- conditional ceasefire until abroad, particularly in of Hamas's strength comes ics has brought to a July, halting all attacks if Jordan, Syria and the US. from an extensive network of

But it was unclear whether **¬he US moves follow** 

Hamas was founded in 1987 Jordan is the most likely

In 1989 Sheikh Yassin was jailed for life by Israel for setting up Hamas and for responsibility for the kidnap and killing of two Israeli soldiers. After Sheikh Yassin's arrest. the movement separated the political and military wings Yesterday's effort by Hamas politicians to end the violence

s a recognition of gathering

According to senior diplomats, US President Bill Clinton on Monday sent stronglyworded letters to Mr Arafat. Syrian President Hafez al-Assad and Jordan's King Hussein, urging them to close down Hamas's operations.

advice from senior Israeli intelligence offi-cials that attacks have been ordered from outside, and the only way to defeat Hamas terrorism is to cut off its external finance worth up to \$70m a year. "When we speak today of how to fight Hamas, first we must stop the money," a senior Israeli military official said last

first step for a move against Hamas. Mr Ibrahim Ghoshe, a rominent Hamas leader, uses the headquarters of the kingdom's Islamist movement as a conduit for funds from abroad. Moves against Hamas's external support could be devastating for the movement and the political leadership understands this. Recent Hamas documents confiscated by Israel warned about the danger to the movement from a discontinuation of largely private assistance from abroad

Islamic schools, clinics, adult education centres and social welfare programmes for the poor which often deliver better services than the Palestinian Authority.

"Hamas is ready today to compromise on military attacks to preserve its civilian infrastructure," the Israeli military official said.

The confiscated Hamas documents argued for a shift in tacties in favour of political accommodation with Mr Arafat and the formation of a political party. Moderates in Hamas's political leadership began talks with Mr Arafat, and attacks against Israel were unofficially suspended for But the extremists who

largely control the military wing and dominate the external leadership vetoed Mr Arafat's demand that Hamas surrender its weapons and abandon the armed struggle; Hamas eventually boycotted the January Palestinian elections.

The failure of talks with Mr

Arafat strengthened the hands of Hamas extremists. Israel's killing of Hamas master bombmaker Yayha Avyash ("The Engineer"), in January also sabotaged the ability of moder-Like many Islamist move- ate political leaders to restrain



Stopping traffic: An Israeli army reservist mans a roadblock between the West Bank and Jerusalem

Monday's Tel Aviv bombing was a warning that Hamas

divided will be a much greater threat to peace and security

## set to outlaw nuclear weapons

By Frances Williams in Geneva

Government leaders and ministers from all 53 African countries are set to sign a treaty outlawing nuclear weapons throughout the continent next month.

African diplomats said yesterday they hoped the accord. which was drafted with United Nations support, could serve as a model for an eventual nuclear weapons-free zone in the neighbouring Middle East. "We want the treaty to

encourage people in the Middle East to go this way. Then Africa can be truly sure of its security," said Mr Jacob Selebi, South Africa's ambassador to the UN in Geneva. The African Nuclear-Weap-

on-Free Zone Treaty, also known as the treaty of Pelindaba, is the third regional pact barring nuclear weapons, following those covering Latin America and the South Pacific. The Pelindaba accord com-

mits countries to renounce the development, acquisition, test-ing or stationing of nuclear arms on their territory. It also prohibits the dumping of imported radioactive waste. In addition, the five declared nuclear-weapons states - the US, Russia, France, Britain and

sign two treaty protocols guaranteeing not to attack treaty members with nuclear weapons or to carry out nuclear tests in the region. They have not yet given a

firm response to their invitations to next month's ceremony in Cairo, but Mr Selebi said yesterday he was "very confident" all five would sign. A third protocol commits France and Spain to observe the treaty for their own territories in Africa.

Mr Sola Ogunbanwo, a UN official who advised on the treaty, said the first moves towards denuclearisation of Africa in the early 1960s were sparked by French atomic tests in the Sahara desert.

destroy its six atomic warheads and join the Nuclear Non-Proliferation Treaty paved the way for the conclusion of the African pact in Pelindaba near Pretoria in 1995.

The treaty, which will come into force after ratifications by 28 African nations, allows members to decide for themselves whether to allow visits or transit by foreign ships and aircraft which may be carrying

### China - have been asked to Sydney games chief quits

The International Olympic Committee has sacked ISL, its long-time marketing and promotions company. After this summer, the IOC will handle the multi-billion dollar sales of broadcast and sponsorship rights internally.

The move ends a 13-year relationship with a company which has engineered the IOC's transformation from a financially strapped organisation to a body with revenues equal to some multi-national corporations.

ISL, based in Lucerne, Switzerland, handles promotions and marketing for some of the world's leading sporting organisations including Fifa, football's governing body, and the International Amateur Athletics Federation. It was also responsible for the sale of sponsorship rights for this summer's European football championships in England. Revenues raised by the IOC for this

ummer's Atlanta Games include more than \$1bn from the sale of sponsorship rights and \$1.4bn from the sale of broadcast rights. By comparison revenues from the 1980 Moscow Olympics were \$150m to \$160m from the sale of sponsorship and broadcast rights. Mr Michael Payne, marketing director for the IOC in Lausanne, said that

after the Atlanta Olympics this summer, ISL will not handle either sponsorship services - logistical support for sponsored promotions in connection the Olympics - or the IOC's co-ordination with the 200-odd National Olympic Committees.

He said the IOC had reviewed its relationship with ISL because both corporate stances and the individual national Olympic committees have

become more sophisticated about the marketing potential of the Olympic

"We have worked with ISL for 12 or 13 years and it became apparent that on the client service side, the dialogue was increasingly between the sponsors and the IOC directly," Mr Payne said. "The sponsors wanted to have the big strategic discussions directly with the IOC," he explained.

The IOC will complete the sale of sponsorship rights for the 1998 Winter Olympics in Nagano, Japan and the 2000 Summer Olympics in Sydney. probably before the end of the summer, Mr Payne said. After that ISL will no longer have any involvement in IOC marketing and promotions except for specific projects. The IOC might continue to use ISL's research division.

Mr Payne said the IOC now had the

lympic committee sacks marketing group sophistication to do much of the sale of sponsorship and broadcast rights itself. For instance, IOC members personally negotiated the sale of broadcast rights for the Olympics from 1998 through to 2008, an agreement which for the first time allows the organisation to share in advertising revenues.

An ISL official in Switzerland said the company's relationship with the IOC was being "redefined" at ISL's suggestion. "The programme has matured. What people didn't think could be done has been done," he said.

ISL was formed in 1983 by the late Mr Horst Dassler, one of the family owners of the Adidas sporting goods company. Dentsu, Japan's largest advertising company, held a 20 per cent stake until last year when the majority shareholders, the Dassler family, reduced that stake to 10 per cent.

By Nikki Tait in Sydney Mr Gary Pemberton, the

Australian businessman, yesterday announced he was quitting as chairman of the Sydney Organising Committee for the Olympic Games, due to be held in the city in 2000. This prompted speculation that his departure reflected disagreement with the New South Wales Labor government or with the International Olympic

have the European broadcasting rights for the games. But Mr Pemberton, who also chairs Qantas, the recently privatised airline, said the decision was for personal and busi-

Committee over who should

Mr Pemberton will be replaced by Mr John Iliffe, chairman of Woolworths, one of Australia's biggest retailers. and also of GIO Australia, the

insurer. Mr Pemberton's departure is the latest in a series of changes in the committee. After Sydney won the bid, the committee had difficulty finding a chief executive. A couple of headhunted candidates fell away at the eleventh hour, and Mr Pemberton was obliged temporarily to do this job as well as

chair the committee.

More recently, the IOC awarded the television rights to the European Broadcasting Union for US\$350m (£283m), rejecting a US\$500m offer from

a consortium led by Mr Rupert Murdoch's News Corporation. It said the EBU had proved over time that it could provide "as much exposure as is possi-

Both Mr Pemberton and Mr Michael Knight, the state government's Olympics minister. said they were disappointed at the decision.

In a letter to committee directors, Mr Pemberton said he had disagreed with the IOC over what role he should play in the negotiations for TV rights. But he subsequently stressed disagreement over this issue would not have any wider impact on the relation-

Subsequent progress was blocked by South Africa's bid to become a nuclear power.

The second second

By Afshin Molavi

Several big companies and

thousands of Cuban-Americans

are lining up to flood Miami

courts with law suits as the US

ing to lawyers and officials

signed by Mr Clinton next

week, allows US citizens, par-

ticularly naturalised Cuban-

Americans, to sue foreign com-

panies operating or trading

with Cuba if it can be proved

that they have profited from

expropriated land

in Washington

Cuba trade

veapons

that are

profession and the

20

INESOAY WARCHER

Marine State of State tidasco con tempo O Secretary Records Records

Russia loans Mar Sweet - 12 . E. T. or the control of the W. W. Company

Cuban-American claims alone could reach a total of Treatment of the same of the s \$94bn, according to Miss Wendy Sherman, a State Department official, while US Finance of the second of the s courts could face nearly \$2bn in administrative expenses, said Mr Robert Muse, a lawyer who has been following the bill. Some potential claimants hope to be compensated for land expropriated as far back te panels as Fidel Castro's revolution in

the bill also allows non-Amerinies investing in Cuba on the can companies or citizens to set up a US holding company in Miami with the sole purpose of filing law suits. If a company was deemed to be violat-

bill to spur legal action

priated property, its executives could also be denied US visas. "Miami lawyers are in for a boon," said Mr Lewis F. Desloge, a St Louis-based Cuban-American businessmen, who argued that a powerful group Congress prepares to send a tough anti-Cuba trade bill to President Bill Clinton, accordof wealthy Cuban-American exiles and big business influ-enced the US Congress to pro-ceed with the legislation.

who have been tracking the legislation. The Senate approved the bill yesterday.

The Cuba Liberty and Solidarity Act, expected to be signed by Mr Clinton The progress of the bill accelerated in Congress last week after Cuban MiG fighters shot down two unarmed civilian aircraft flown by a Miami-based anti-communist group.

Mr Jesse Helms, Senate foreign relations committee chairman, has vigorously pushed the bill, leading to criticism that he has been heavily influenced by Cuban-American fund-raising groups and the Bermuda-based Bacardi Rum Company, which, they say, stands to gain from the legislation. Bacardi is a big campaign contributor to Mr Helms. Another company that could gain is Chiquita Brands International, which operated in Cuba as United Fruit.

The European Union attacked the legislation. "We condemn in the strongest possible terms specific provisions of the bill which run the risk of A little-noticed provision of putting non-American compawrong side of American jus-

tice," an EU spokesman said. Mr Art Eggleton, Canada's

### trade minister, said the bill would violate Nafta, which ing the law, which includes groups the US. Canada and trading or investing in expro-**Factory orders** likely to boost

**US** economy

The US economy may rebound this spring, strong figures for factory orders indicated yester-

The Commerce Department said new orders for manufactured goods rose 0.5 per cent in January, reflecting strength in the technology sector. Officials also released revised figures for December, showing a gain of 1.7 per cent rather than 1.3 per cent as previously

reported.
The figures were considerably stronger than expected in financial markets, where analysts had predicted a fall in orders of 0.3 per cent, reflecting the impact of severe

Orders rose despite weakness in the volatile transport sector. which was pulled down by an erratic 11.8 per cent decline in aircraft orders. Excluding transport, orders rose 1.5 per cent in January. The strongest sector - industrial machinery and equipment - registered a gain of 5.7 per cent from

The economy was likely to "snap back" in the spring and grow at an annual rate of about 2 per cent, said Ms Diane Swonk, a senior economist at First National Bank of Chicago. However, the first quarter was likely to be even more depressed than the final period of last year, with annualised growth of less than 1 per cent. Ms Swonk said the Federal Reserve was likely to cut interest rates again despite the prospect of a modest economic rebound because wage and price inflation remained sub-dued. Rates could be cut a quarter point later this month and by a further half point dur-The orders figures showed encouraging strength in capital goods. Excluding aircraft and

defence industries, new orders for capital goods - a guide to civilian investment trends rose 3.3 per cent in January, reversing falls in preceding months.

The harsh winter weather in January mainly affected ship ments of orders, which fell 0.9 per cent following a 0.7 per cent gain in December.

## Prospectuses in US 'unreadable'

Prospectuses issued by companies raising capital in the US should be simplified and made more intelligible, a Securities and Exchange Commission task force urged yesterday. The suggestions are part of a wider debate on SEC regulation of the US securities markets, writes Maggie Urry in

New York The task force on disclosure simplification, set up last August, concluded that although the regulatory structure had served the market well for over 60 years, it "should be rethought in the age of novel financial instruments and virtually instantaneous electronic information

and clearance". Its report put forward 140 recommendations to remove unnecessary regulations, make disclosures more readable and to reduce the cost of raising capital in the US. These should cut the regulatory burden and the cost of compliance "without reducing the transparency and integrity of our capital

markets," the task force said. The task force found that prospectuses were often "tur-gid, opaque and unreadable." It suggested a new format for the opening pages of a prospectus which should "answer the more common questions asked by investors". The task tinue its plain-English initiatives" to make disclosures 'concise and more readable".

It recommended the repeal or reform of 81 rules and 22 forms, which would eliminate or modify 25 per cent of the rules and 50 per cent of the forms that it had reviewed.

Other recommendations would make it easier for small companies to gain access to the capital markets. At present only large companies can use the shelf-registration system, under which companies register an offer of securities without setting a date so that they can issue them at short notice to take advantage of favourable market conditions.

The task force suggests extending shelf-registration to smaller companies with a 12month record of filing public reports. This would allow a further 4,800 companies to

make shelf registrations. Under the proposals, tender offers involving an offer of securities would be put on a similar basis to cash tender offers. These offers, often made in takeovers, would mean if a company offers to buy another for shares rather than cash it would not have to wait while the new shares were being registered before starting the offer.

## Argentina senses hardening UK position

By David Pilling in Buenos Aires

Britain's decision to charge Argentine vessels a licence fee for fishing around South Georgia may reveal "a general hardening of attitode" towards Buenos Aires, officials at the Argentine foreign ministry said yesterday.

The ministry, which yesterday delivered a formal letter of protest to the British embassy, said Argentine-flagged ships had always fished unhindered around South Georgia, an uninhabited UK dependency in the South Atlantic.

The fact that an Argentine-regis-

tered ship had last week been charged a £70,000 (\$107,000) fee showed that "apparently there has been a change of British policy [towards Argentina]," an official said. "We hope this does not mean a general hardening of attitude."

Argentina, which disputes UK sovereignty over South Georgia, will advise its ships not to pay for South Georgian fishing licences. However, officials stressed Buenos Aires was not seeking to provoke an incident, military or otherwise. The British Royal navy frigate HMS Northumberland is currently patrolling South Georgia alongside the Cordella, a

The British embassy in Buenos Aires denied it had hardened its stance. "There is no change of policy towards either the Falklands or South Georgia," it said. "The charging of licences is perfectly in accordance with the regulations of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). We are doing this in the interests of conservation."

South Georgian authorities, which operate from the disputed Falkland islands, have since 1993 issued licences to vessels of several nations, but never to Argentine-flagged ships. sels. Last year, CCAMLR set an

Some commentators suggest Britain has previously turned a blind eye to Argentine fishing around South Georgia, but has now decided to enforce regulations more strictly.

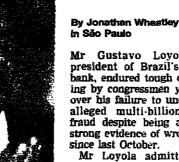
Fishing vessels go to South Georgia, 800 miles southeast of the Falklands, mainly to catch toothfish, which fetch high prices in Japan and Europe.

The 21-nation CCAMLR uses scientific research to determine an annual total allowable catch, this year of 4,000 tonnes. CCAMLR does not set licences, but leaves it up to individ-ual states to control their own vesallowable catch of 2,800 tonnes, but estimates that more than 6,000 tonnes were actually caught.

 Argentina saw retail prices fall in February for the fifth time in the past 12 months, bringing 12-month inflation to just 0.3 per cent - a record low. February prices dropped 0.3 per

Some economists are concerned that Argentina, once wracked by hyperinflation, is in danger of entering a deflationary spiral. The fact that prices fell in February appears to lend weight to those who say the economy will only climb gradually

## Brazil bank chief grilled over fraud



Cardoso: tackling problems

Mr Gustavo Loyola, the president of Brazil's central bank, endured tough questioning by congressmen yesterday over his failure to uncover an alleged multi-billion dollar fraud despite being aware of strong evidence of wrongdoing

since last October. Mr Loyola admitted that he first suspected the existence of fraud at Banco Nacional after a meeting with its controlling shareholders on October 5 last year. However, he denied recent press reports that the controllers had ad-

mitted committing any crime. Banco Nacional, one of Brazil's biggest private-sector banks, was taken over by the central bank last November after running into insurmount-

able liquidity difficulties. Mr Loyola said it was clear by October that the bank could not survive and would have to

The central bank took over Nacional's debts and sold its healthy assets to another big bank, Unibanco.

Mr Loyola appeared to have staved off calls for a full parliamentary commission of inquiry into the affair.

The government is keen to

avoid such a probe as it would divert congress's attention from essential structural reforms.

It could also embarrass the central bank, whose ability to supervise the banking industry has been criticised by analysis and politicians. Congress earlier agreed to forgo a full inquiry in return for an expla-

since 1986. nation from Mr Loyola. President Fernando Henbank's assets and liabilities rique Cardoso said yesterday were hidden by fictitious loans to over six hundred customers.

his government was tackling the problems of the banking sector, previously masked by Brazil's high inflation, and "cleaning up the heritage of

Nacional had been rumoured Shortly before taking control to be in deep trouble for months before its collapse. But of Nacional, the central bank created a programme known as Proer to provide cheap financa report published last week by Veja, Brazil's leading news ing for expenses in mergers magazine, went much further and acquisitions in the bankand accused the bank's coning industry. trollers of fraudulently

investigating the affair in pri-

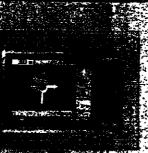
was forced to comment pub-

Congressmen accused Mr manipulating its accounts Loyola yesterday of creating Proer for the sole reason of According to Veja growing discrepancies between the devoting public funds to saving Banco Nacional

Mr Loyola argued that Proer was created to safeguard the interests of depositors rather

The central bank has been than of banks or bankers. However, he admitted that vate since last November, but the entire \$5.8bn lent under the system so far went to Banco licly following the Veja report.





Systems, Weizlar.

are most successful car-havination system on the market. Cost here are a to make it compatible with older cars, and to develop it as

it will obeat makes arrive quickly, economically, safely as well as by the best possible route. When we achieve that, we'll look for a new destination.



Laura Tyson in Taipei and Charles Batchelor in London

With the announcement yesterday of missile tests close to Taiwan's two largest ports, China is turning the heat on Taipei rather higher than had been expected before the March 23 presidential election. While China had already threatened to conduct tests, they had not been expected to put trade at risk.

Taiwan's stock market, which fell 1.3 per cent yesterday, has been vulnerable since tests started last summer. The central bank again pledged to support the currency at T\$27.50 to the US dollar. About \$10bn of capital flowed out of Taiwan last year, causing a tightness of domestic liquidity which aggravated the stock market's

After heavy intervention since last July, the central bank's reserves, which are among the largest in the world. have fallen from a peak of \$100bn to just below \$90bn, But the bank says it would still be comfortable if they fell as low as \$45bn-\$50bn.

The government said last night it had already taken



transport. The closure of an air corridor used for 30 flights a day between Taipei and Japan, Australia and the US will add perhaps 10 minutes to flying times. Traders say the most visible effect of the tests could be on shipping. Military activity in the

Taiwan Strait would seriously disrupt shipping and could have a knock-on effect on the two large container terminals at either end of Taiwan, shipping experts warned. About 70 per cent of

and Keelung, and other ports are too small to take the strain. This could seriously disrupt trade in March but exporters larger fear is that their order books will dwindle as customers fret about Taiwan's future ability to meet delivery dates.

The stratt is on the direct route for tankers, dry-bulk carriers and container vessels sailing from Singapore and Hong Kong to Shanghai, South Korea and the Japanese ports. "All the biggest shipping lines use the Taiwan Strait," said Mr Keny Chou, London representative of the Yang Ming Line, a Taiwanese container group. "It would have a big impact on shipping in the strait." Many cargoes destined for

Chinese ports are transshipped from ocean-going vessels in Hong Kong and then moved up the Chinese coast through the Taiwan Strait. "It is a very busy route," said Mr Chris Horrocks, secretary general of the International Chamber of Ship-

Shipping in the strait already has to take account of strong currents and shallow waters. Navigation can be difficult in the typhoon season with little room to manoeuvre



strait to reach offshore mooring buoys at the northern tip of Taiwan and container ships serving Kaohsiung to the south and Keelung to the north of the island also pass through it.

third largest container port after Hong Kong and Singa-pore, handling 4.6m containers in 1993, according to Containerisation International Yearbook rankings. Keelung ranked 13th

### Beijing to try to end budget deficits

By Tony Walker in Beijing

China will seek to eliminate its budget deficit by 2000, but faces big challenges in boosting revenues and controlling expenditures, Mr Liu Zhongli finance minister, told the opening session of China's parliament yesterday.

Mr Liu forecast a budget def-

icit for 1996 of Yn61.4bn (\$7.4bn) or about 8 per cent down on last year's budgeted figure. But he said the "deficit is still rather large and debt

too heavy". He blamed tax evasion and fraud, unpaid taxes by struggling state enterprises and excessive spending on waste-ful capital works projects for China's continuing budgetary difficulties.

China, he said, "mus tighten the collection and management of taxes, oppose all forms of extravagance and waste, and strive to reduce the deficit by taking measures to expand sources of revenue and reduce expenditures.

Mr Liu warned a "huge amount of debt" was due to be repaid this year. Debt service obligations would total Yn133.1bn, up Yn46.2bn on 1995. Foreign loans plus the budget deficit would take total obligations in 1996 to Yn195.2bn, to be financed by the issue of treasury bonds. China's revenues for 1996

are forecast at Yn687.2bn, an increase of 11.1 per cent compared with 1995. Expenditures are expected to reach Yn748.6bn, up 9.9 per cent on

the 1995 figure.
Mr Liu said China's plans to slash tariffs to an average 23 per cent from 35.9 per cent from April would "increase the difficulty of balancing the

China would increase defence spending this year by 11.3 per cent to Yn70.2bn, but this represented a smaller increase than last year, when the defence budget grew by 14.5 per cent. Budgeted defence spending accounts for perhaps less than half actual expenditures on the military. The services generate their own revenues from commer-cial activities. They also receive "off-budget" funds.

ASIA-PACIFIC NEWS DIGEST

## Thais struggle to slow economy

That economic performance in January provided mixed results for the government's plan to slow the economy and impose some discipline on the growing problem of too much short-term capital inflows. For the sixth consecutive month, the growth in private investment slowed, registering a 14.1 per cent increase year-on-year in January against 14.3 per cent in December and 14.7 per cent in November.

Import growth also slowed significantly, increasing 16.3 per

Import growth also slowed significantly, increasing 16.3 per

cent in January against 27.9 per cent in December. Export growth remained steady at 23 per cent, leading to a trade deficit of Bt37bn (\$1.47bn), still a big contributor to the country's current account deficit.
In December, that deficit was Bt31.7bn, slightly below

previous months, but analysts said a significant long-term downward trend is still not apparent. Growth in manufacturing increased for the fourth consecutive month, coming in at 9.8 per cent. But the main worry continues to be inflation, an annual 7.4 per cent in January. The central bank argued the increase was mainly due to rising food prices and therefore was cyclical. This has been the main explanation for rising inflation for the past 13 months. Ted Bardacke, Banglook

#### Election called in Victoria

Voters in the Australian state of Victoria will go back to the polls on March 30, this time for state elections. Mr Jeff Kennett, head of the Liberal-National coalition state government, yesterday called a snap poll just three days after he conservative coalition won a sweeping victory in Australia's federal election.

Mr Kennett denied he was out to capitalise on the federal win, saying if he did not call an early election, months of

destructive speculation would ensue.

The Kennett government, elected in October 1992, has pursued the most aggressive privatisation programme of any of coalition-controlled states. It has taken an axe to government spending, contracting out services and cutting obs, but has actively promoted the state, adding tourism attractions such as this week's Grand Prix and wooing foreign

Saturday's result showed a swing against Labor in Victoria. less marked than in Queensland or New South Wales. It would take a contrary swing of well over 7 per cent to dislodge the Nikki Tait, Sudner

#### Singapore to censor Internet

Singapore's Internet access providers will have to block out sexually-oriented and politically sensitive material, the Singapore Broadcasting Authority said yesterday. Most Internet activity would not be affected by the new

rules, but the authority said it would regulate World Wide Web pages, and access to those based in foreign countries, that might undermine public morals, political stability or religious harmony. Pages run by Singapore political parties would have to be licensed by the government.

In Singapore, which has about 100,000 Internet users among its 3m population, the government has embraced the Internet, using it to issue press releases and official statistics. "But we must also try to keep in check abuses in cyberspace such as pornography, hate literature sowing social and religious discords, and criminal activities," the authority

The government has already put some sites off-limits by ordering the country's three Internet access providers not to connect to news groups whose titles include "alt.sex". SingNet, an access service run by Singapore Telecom, the country's phone company, said it could keep out unwanted foreign material by blocking access to sites identified by the

## China grows more suspicious of Lee attend a reunion at Cornell university

China suspects President Lee Teng hui, who is of native Taiwanese extraction and is widely expected to win this month's presidential election, of shifting towards independence from China rather than eventual reunification, write Laura Tyson and Peter

It has subjected him to vehement public criticism since he made a private visit to the US last year. Some analysts believe the aim of the missile tests announced yesterday may be to frighten voters into according Mr Lee a victory but with less than 50 per cent of

the poll. That would reduce his mandate for promoting independence.

To a limited degree, the tactic worked in last December's general elections. These saw a surprisingly strong showing for the conservative New party which wants to foster close links with China. The ruling Kuomintang nationalist party scraped home with only just over half the seats in the Legislative

Others argue that Mr Lee is the only Taiwanese politician with whom China could eventually clinch a deal on reunification. While it clearly wants to dis-

credit him, there is a growing view in Taipei that Beijing has also become aware of the need for quick progress on

> The chance of bringing Taiwan back into the fold may ebb as democracy becomes more entrenched and once Hong Kong reverts to mainland rule China has said it will not rest until it

has brought about reunification, and may keep up its pressure even after the

China was enraged by the US decision last year to grant Mr Lee a visa to

has heightened unease on the island long accustomed to living under a siege

dation against Taiwan.

nentality. There are concerns that with the tests taking place so near to its shores, there could be some sort of mis-calculation. As one Taipei-based foreign investment banker joked: "I'd feel much

Beijing recalled its ambassador from Washington, froze most official contacts

and embarked on a campaign of intimi

Yesterday's announcement by Beijing

## Mad Hatter enters Japan's loan fray

The government is becoming desperate to persuade the public, writes Gerard Baker

The final stages of the breakfast. This latest twist is Instead, its main component is Japanese government's for a bailout of the country's housing loan companies through parliament look increasingly as though they might have come from the pages of Lewis Carroll's Alice

In chaotic scenes at the parliament building in the past two days, members of the main opposition have so far successfully blocked passage of the budget that would permit the proposed public spending. Their tactic has been to

stage a kind of Mad Hatter's tea party outside the committee chamber, assailing government ministers who attempted to persuade them to get on

Then, in a similar spirit of surrealism, in the early hours of Tuesday morning, the increasingly desperate governing coalition parties came up with a novel plan designed to break the deadlock.

The new proposal purports to make concessions to official opposition and public hostility by increasing the costs of the bailout to the country's banks. On closer examination, if it is to succeed, it clearly requires the Japanese public to

eral impossible things before

an attempt to assuage the almost unprecedented popular anger at the planned use of public money in the liquida-tion of the housing loan companies, which are on the point of collapse under a pile of nonperforming loans.

The focus of the new scheme is an apparent increase in the burdens to be borne by the main creditors of the housing lenders, the country's banks and agricultural co-operatives.

The original plan, which was drawn up three months ago. called on the banks that founded the housing loan companies, or jusen, to write off all their Y3,500bn (\$33bn) in loans. Non-founder banks would write off Y1.700bn, while the agricultural co-operatives, the

biggest category of creditor.

got off lightly with just Y530bn. The remaining Y680bn would be met by public funds. These funds are expected to cover the first-stage Y6,400bn in known losses at the jusen. Further losses expected to reach at least Y1,200bn, would then be covered over a 15-year period, split half and half between banks and public

The new proposal changes none of these basic elements. despite public pressure on the government to back down. that over a seven-year period. the banks will pay additional taxes of Y500bn. The agricultural co-operatives will pay an extra Y180bn. The combined sum is almost

precisely equivalent to the government's planned contribution to the scheme. That appears to leave the banks and the farming institutions in effect paying back the controversial Y680bn the government has agreed to pay

But the new scheme, in fact, represents nothing of the sort. The banks, it is claimed, will pay the extra tax by means of higher profits. They have pledged to restructure their operations to improve their profitability by Y1,500bn over the next seven years. That will result in higher corporation tax payments of Y500bn into the government's coffers.

gricultural co-ops will have to find savings of at least Y500bn to produce higher tax payments of Y180bn. In short, the money is to come from unspecified targeted savings made by financial institutions.

There are several reasons why the scheme is unlikely to pass the credibility test with voters. The banks are in process of restructuring their operations anyway, under pressure from their own heavy burden of non-performing loans. Any improvements would in

any case have gone partly to the government in the form of higher taxes. But more important, there is no guarantee in the proposal that banks and agricultural cooperatives will in fact achieve improvements that will produce extra revenue for the gov-

ernment. The outlook for Japanese hanks' profits in the new few years is still bleak The flimsiness of the pledge was underlined yesterday by Mr Toru Hashimoto, chairman of the Federation of Bankers' Associations and president of Fuji Bank, one of the largest banks. He told a news conference that while banks were committed to trying to make savings over the next seven

promise unequivocally to pay the Y500bn in higher taxes. Opposition politicians were contemptuous of what they saw as an attempt to hoodwink the electorate into backing the

years, they could not possibly

"These changes amount to nothing more than an attempt to deceive the people." Mr Tak-ashi Yonezawa, secretarygeneral of the New Frontier party, the main opposition party, claimed.

Even finance ministry officials appeared nonplussed. The official view was that the ministry welcomed any moves that might improve the health of the banking system, as a benefit for the economy as a whole. But in private, ministry officials were scathing.

"The coalition parties obvi-ously feel it is a sensible political move, but from a financial point of view it is complete The government, in short,

remains trapped between two forces. On the one hand, the public, as evidenced in opinion polls and local election results in the past few weeks, is growing ever more furious about the use of taxpayers' money to bail out what they see, at the least, as inefficient financial institutions.

But on the other, the banks that founded the jusca will not budge from their determination not to accept any more of the cost of liquidating them.

The government is adamant that its latest scheme marks a genuine attempt to bridge the gap. But its increasingly desperate attempts to appease the public suggest it may be following a dictum of another of Alice's friends: "When I use a word," said Humpty Dumpty. "it means just what I choose it

## Patten in plea to China on HK residence rights

Mr Chris Patten, Governor of Hong Kong, yesterday challenged China to respond to Britain's announcement of visa-free access for Hong Kong residents by making a guarantee on the right of abode for the territory's inhabitants.

The British government has

made a sensible and helpful decision on visa-free access. said Mr Patten, referring to Monday's announcement by Mr John Major, UK prime minister, to waive visa requirements for Hong Kong residents after next year's handover to

"Now it is for the Chinese leaders to make as rapidly as possible an equally positive decision on the right of abode

in Hong Kong after 1997."
The conditions that China attaches to the right of abode, which will also determine whether Hong Kong residents ahead of the handover.

"It is a serious confidence issue," a Hong Kong government official said. "Not just for the local community but also for the overseas Chinese dias-

During a meeting in January

with Mr Malcolm Rifkind, UK foreign secretary, Mr Xian Xichen, his Chinese counterpart, indicated Hong Kong residents would not need to re-register. The issue has become a subject of contention among Chinese officials and a final decision has yet to be taken. China welcomed Mr Major's

stance on visa-free access. regarded as necessary to support free travel and the colony's position as a trade and financial centre.

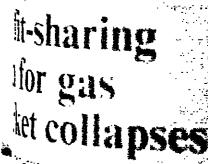
But pro-China politicians in Hong Kong and the pro-Chi-nese press have criticised Mr

tional community should Bei jing breach the terms of the 1984 Sino-British Joint Declaration on Hong Kong.

"For Major to say such a thing at this time at this place is extremely unwise and could put improving Sine-British relations under a cloud," the Ta Kung Pao newspaper said in an editorial.

"If Britain schemes to mobilise the international community to interfere in China's affairs it will run into a stone wall." The paper often provides a platform for official Beijing

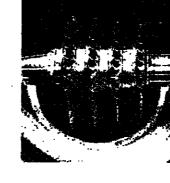
Mr Major's announcements, made during a visit to Hong Kong, marked an attempt to reassure the colony ahead of the handover. He warned China against dissolving the Legislative Council and against tampering with human rights



A STATE OF THE STA



### From now on we are all pulling together



MAN Gutehoffnungshütte AG, Oberhausen, and Deutsche Babcock-Borsig AG, Berlin, announce that from 1 March 1996 GHH BORSIG Turbomachinery GmbH, Oberhausen is established. The company will operate from Berlin and Oberhausen with worldwide support from established Sales, Marketing and Service organisations. The enhanced product programme of the new company includes:

Turbo compressors of both axial and centrifugal design. Integrally geared centrifugal compressors. Gas and steam turbines for power generation and mechanical drive. Process gas expansion turbines. single and multi stage design. Process gas screw compressors. Turbomachinery Control and Protection

GHH BORSIG Turbomaschinen GmbH

46145 Oberhausen/Germany Fax: ++ 49/208/692-2019 13507 Berlin/Germany Fax: ++ 49/30/4301-2236



**UK NEWS DIGEST** 

motion is vital.

up from £10bn in 1994.

biggest pipelaying vessel

made its demise inevitable.

government announced last night.

and Research Agency.

be about 23.5m, up from 21m.

Tourist industry

hits record year

A weak pound and the Northern Ireland ceasefire helped the

British tourist industry notch up a record year in 1995, with

visitor spending up by about 18 per cent, figures will reveal

Mrs Virginia Bottomley, the heritage secretary, will hail the

figures as evidence that tourism is now more important than

North Sea oil and the financial services industry to the UK

But many in the tourist industry remain concerned that

Figures from the Central Statistical Office will show that

The annual figures will also show an increase of some 12 per

George Parker, Westminster

Chris Tighe, Newcastle upon Tyne

Clive Cookson, Science Editor

cent in the number of visitors to Britain - the largest jump in

recent years. The total number of visitors in 1995 is expected

Beleaguered shipyard wins order

Swan Hunter, the Tyneside shipbuilder saved in June after

two years in receivership, will today announce its first sub-

stantial order, which will provide work for 1,300 people.

The company, owned by Dutch businessman Mr Jaap

Kroese, has won a multi-million pound contract to convert a

330m-long, 90,000-tonne bulk carrier, Solitaire, into the world's

The contract, awarded by Dutch-based Allseas, is a break-

through for Swan Hunter's new management, which bought

the company's main Wallsend yard and its name for about

£4m just days before an auction of its machinery would have

Swans' confirmation of the order, signed on Friday after

months of negotiation, coincided with news yesterday from

VSEL, based in Barrow-in-Furness, Cumbria, that it has won

its first merchant shipbuilding order for more than 20 years.

In a £14.75m deal that will save 60 jobs which were to have

been shed next month, VSEL will build two tankers for ship-

owners James Fisher and Sons. The order was won against competition from the Far East, Turkey, the Netherlands and

Britain's Meteorological Office is to gain extra commercial

freedom by moving to "trading fund" status from April 1, the

The effect will be to remove the Met Office further from the

financial and managerial control of its parent department, the

Ministry of Defence. Instead of receiving most of its funds

directly from the MoD through the parliamentary vote, the

Met Office will meet all running costs by selling forecasts to the MoD and other customers in the public and private sec-

As a business it will have revenues of about £150m a year.

Its asset base is just over £100m (of more than half represents

About 15 government agencies are already operating as

trading funds, from the Royal Mint to the Defence Evaluation

An attempt to allow Mr Asil Nadir, the former Polly Peck

chairman, to give evidence by live video link from northern

Cyprus in the Old Bailey trial of Mrs Elizabeth Forsyth, his personal assistant, was blocked yesterday by Mr Justice

Tucker, the trial judge. He said the law only allowed video

links to be used in cases where perjury proceedings could later

be brought against witnesses if necessary. This was not possi-

Mrs Forsyth denies two charges claiming she handled £395,000 allegedly stolen from Polly Peck by Mr Nadir. Mr Nadir has remained in northern Cyprus since leaving Britain

A survey of senior oil industry executives shows that capital

spending on exploration activities in the UK is expected to rise

The survey, carried out by Arthur Andersen, the accountants and consultants, showed 57 per cent of respondents plan

to increase exploration spending. It was less clear whether there would be a rise in North Sea development expenditure,

however, with respondents divided equally between an

the UK share of international weather satellites).

Nadir video link blocked

ble with Mr Nadir in northern Cyprus.

Oil exploration set to rise

this year even if oil prices remain relatively soft.

Weather service funding shift

visitor spending in the UK in 1995 was about £11.8bn (\$18.2bn),

Brtain is failing to increase its market share of world tourism,

and they believe more government spending on overseas pro-

ESPAY WATER

Provide the second Brails.

The same True . March of Mark Control of the C Page . .... Burn to

Man Care

(Victoria A Refer Table (1971) Moreover and a Andrew St. Bar et :

हेंचे अहरे हैं। केर्चेट की जिल्ला ed on the contract of P. Carrie हैं भग ल्ला इ.स.च्या E SAA ... Later of PART TO COLOR OF THE

or Internet 3744 to 2 - 1 - 1 -A Bettill Street 22 h

ಸಕ್ತಾ ಪ್ರಾರೇಷ್ಟ

100 March 100 214 CA (24.0) 8 **207** h. 44. 1 DESCRIPTION OF THE PERSON OF T The state of the s 3.5 44.4 De 5

74.63P

article a rem

表 4% FOOT 。

3

\$ 500 m 34 (75)

电外延迟器 一

20.0

14.

. خـــــــ

£16.

**∆** ⊶ :

3

i Section

At 19 a service. and the second (agy 1 Appended To the =( TEXA.

But Ofgas officials said they were looking at a system "in which there is only upside for the consumer". Ms Clare Spottiswoode, the director-general of Ofgas, and her staff, are concerned that 19m gas consumers, who have been promised lower gas prices as a result of the planned introduction of full competition in 1998. could see their bills rise in order to cover revenue shortfalls that TransCo might expe-

rience in a bad year. "We recognise the problems of putting the price up to con-

## Tougher law urged on 'corporate killing'

Companies would face big fines for management failures which resulted in death under a change in the manslaughter laws recommended yesterday by Britain's Law Commission.

The government's law reform body called for a new offence of "corporate killing" comparable to killing by gross carelessness, to replace the present law on corporate manslaughter. But it backed away from recommending jail sentences for directors of companies convicted of the proposed

**Artworks** 

disappear

The Ministry of Defence has "lost" 161 of its inventory of

900 works of art. The situation

has become so serious that the

Government Art Collection

has stopped lending works of

Some pictures have gone

missing because mobile mili-

tary personnel tend to take

their office decorations with

them when they move -

including paintings from the

There is no indication of sys-

tematic theft, according to an

investigation by the National

Audit Office - just "natural

wastage". The value of the works gone missing is low, not

much over £100,000, but some

are of great historical interest

The MoD is perhaps the rich-

est and largest of all govern-

ment ministries thanks to gifts

from retired military figures. and commemorative works of

battles and personalities com-

missioned for officers' messes.

Many of the works of art

were lost during the upheavals

that have affected the ministry

in recent years. An 18th century painting, An Officer of the

28th Foot, valued at £8,000.

(\$12,300) disappeared when the

Quartermaster General's office

moved from London in 1992,

while eight of a total of 10

late 1970s also went missing

The run-down in the armed

forces has caused its own

problems. In 1937 the Territo-

rial Centre in Acton was presented with a painting of Rich-

mond Hill by Cropsey. When the Unit was disbanded four

former officers offered the

painting for sale at Bonhams, the auction house, which val-

ued it at £400,000. At the last

moment the Territorial Army

laid claim to the painting but

was forced to pay Bonhams

£80,000 as compensation for

The National Audit Office

has recommended that the

MoD improve its inventory

By Robert Corzine in London

An attempt to introduce

consumer profit-sharing into the domestic gas industry has foundered, with British Gas

and industry regulator Ofgas at loggerheads over how such a

Possible profit-sharing

arrangements have been

included in discussions under

way between the company and

the regulator on a new price

control formula for TransCo.

the pipeline monopoly which accounts for the bulk of British

Gas' revenues. But the two

sides have adopted opposing

approaches to the issue, and

company executives say they

are pessimistic about reaching

British Gas is holding out for

a symmetrical system under

which consumers could face

price cuts or rises depending

on how well TransCo performs

from year to year. . .

an agreement.

mechanism should work.

**Profit-sharing** 

market collapses

plan for gas

loss of sale.

and are irreplaceable.

in line

of duty

By Antony Thorncroft

art to the ministry.

The new law would apply equally to oil platform disaster in which there non-UK companies operating in were 167 fatalities; and the 1988 non-UK companies operating in England and Wales and would extend to UK territorial waters, British ships and aircraft and offshore platforms.

The commission said the difficulties of holding companies responsible had been underlined by the failure of a 1991 case against P&O European Ferries following the deaths of 187 people in the 1987 Zeebrugge ferry disaster,

It said defects in the law had allowed companies to escape prosecution following the 1987 fire at King's Cross Underground station in which 31 died; the 1988 Piper Alpha

Clanham rail crash in south London in which 35 people died.

The main reason was that, under the present law, prosecutions for "corporate manslaughter" could be brought only where one person could be identified as a "controlling mind" of the company. As a result there have only been four prosecutions for corporate manslaughter under English law and only one conviction, in the 1993 Lyme Bay canoeing disaster case in south-west England in

which four people died. The case,

involving a one-man company,

centre was jailed for three years but last month had his sentence reduced by a year by the Appeal Court.

Under the suggested law a company would be liable to prosecution if a management failure resulted in death and that failure constituted conduct far below what could reasonably be expected of the company. Companies convicted of corporate

killing would face an unlimited fine and could be ordered to remedy the cause of the death. Fines would be set by the courts

presented no problem in identifying a according to the circumstances of the controlling mind who was responsible. The owner of an activity commissioner, said the fines imposed commissioner, said the fines imposed by courts under existing environmental laws might provide a benchmark. In 1990 Shell was fined £1m for polluting the River Mersey in north-west England.

> The Confederation of British Industry, the country's biggest employers' lobby, welcomed the clarification of the law but expressed concern that many of the proposals were similar to existing health and safety legislation.

> > Editorial comment, Page 11

## Visitors wash hands of oily beaches

By Roland Adburgham in Cardiff

Since the Sea Empress tanker ran aground off St Ann's Head near Milford Haven in Wales on February 15, spilling 72,600 tonnes of cargo, the fear has been not only of the damage to wildlife but of the impact on the local economy, especially fishing and tourism.

The region is one of the UK's leading tourist destinations, with the county of Dyfed accounting for a quarter of all visitor nights in Wales. Pembrokeshire - the western part of Dyfed and including Milford Haven - has Britain's only coastal national park. Annually, it attracts an estimated 6m "visitor days" and an expenditure of more than £70m

(\$107m). Even before the spillage contaminated the south Pembrokeshire coastline, the economy was under pressure. The unemployment rate in Haverfordwest was 13.8 per cent in January, and in south Pembrokeshire 18.4 per cent. While the

great - a total of 5,000 in these wo areas - that reflects the low rural population.

Mr Roger Davies, the director of West Wales Task Force, says employment in agriculture has declined, has almost disappeared in deep-sea fishing and has stagnated in tourism. The task force is a public sector partnership set up to counter the problems caused by the rundown of the region's military bases. Mr Davies calculates that in the past four years 1,000 direct and indirect jobs have gone from military bases in the area.

About £20m a year has been lost from the local economy. Other jobs have also disappeared, notably with the closure of Dairy Crest's creamery

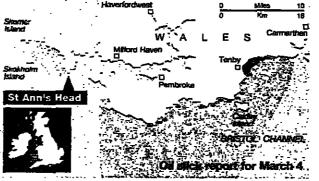
at Whitland in 1994. The task force claims to have helped create about 750 jobs in small and medium-size enterprises. But inward investment has been hard to achieve. although Pembrokeshire qualifies as an assisted area for government grants. Enterprise

numbers of jobless are not zone status for Milford Haven ended in 1994 and an application for new zones was recently rejected.

The tanker disaster, says Mr Nick Ainger, opposition Labour MP for Pembroke, "couldn't have come at a worse time because this is when people are taking decisions about where to book their holidays. It will take a relatively short time to get back the natural beauty, but very difficult to get back those who book elsewhere.'

While fishermen, suffering from a statutory ban on catches, can immediately prove lost income, it will take much longer for hoteliers, holiday cottage owners, caravan parks, restaurants and shops to demonstrate consequential loss. "I'm extremely concerned about what will be the size and speed of payments," Mr Ainger said. The government has announced a £2m bridging fund for hardship cases. "It's a

gesture, but I've a feeling it will be insufficient." he said. Wales Tourist Board is seek-



ैंं Light sheen

ing to reassure holidaymakers that the south Pembrokeshire beaches will be clear of oil before the summer (although there is less certainty about the quality of bathing water). "We are greatly heartened by the clean-up," a spokesman said. "Some of the beaches

were horrific a week ago, and are now 95 per cent clear." Another consequence of the spillage is to heighten concern to convert a power station at Pembroke to import and burn orimulsion, the so-called "dirty fuel". The proposal exemplifies the dilemma of environment versus economy: without the conversion, jobs will be lost; with it, they will be created.

Few argue that refining itself should cease at Milford Haven, where Texaco, Gulf and Elf directly and indirectly employ

#### about 2,000 people. about National Power's plans

## Jaguar's new baby banks on tradition

By Haig Simonian in Geneva

Jaguar, the luxury carmaker owned by Ford, yesterday made a strong bid to be the star of this year's Geneva Motor Show with its new XK8 sports car, unveiled at the event yesterday.
Dubbed "the spiritual succes-

prints transferred fron sor to the E-type by Mr Nick England to Germany in the Scheele, Jaguar's chairman, the XK8 is shorter but roomier than the XJS model it replaces. Mr Scheele said the sleek new sports car, which will go on sale in October, continued a sporting tradition at Jaguar stretching back through the E-type to the legendary prewar SS100.

The company expects to sell about 12,000 XK8s in the first year of production. That would be more than one-fifth higher than the peak annual sales of the E-type and well ahead of the best year's sales of the 21-year-old XJS.

The XK8 should help to raise Jaguar's output to almost 43.000 cars this year from 39,000 in 1995. That would be the highest figure recorded

But British Gas executives

reject the Ofgas approach. "It is difficult to see the incentive

if there is only upside for the consumer," said one senior

executive, adding that he

"would be surprised if there was agreement" on a profit

Ofgas officials, however, said

British Gas's approach on the

issue was not consistent. They

reported conflicting views

between TransCo's manage-

ment and executive directors

at the group level. That was

denied by a senior executive,

who said: "There is no wedge

between the PLC and TransCo"

on profit sharing or any other

issue in the price control for-

The notion of profit sharing in utilities has been put for

ward by Labour as a way to

ensure that consumers benefit

from any "excessive" gains

made by regulated utilities. Mr

John Battle, the Labour party's

chief energy spokesman, yes-

terday said that the party was

still studying the issue. "But a

Labour government would

want to see a fairer distribu-

tion of benefits and profits

built into the regulatory sys-

British Gas executives said

they have looked at a sliding

scale system, under which

both consumers and sharehold-

ers would have to share the

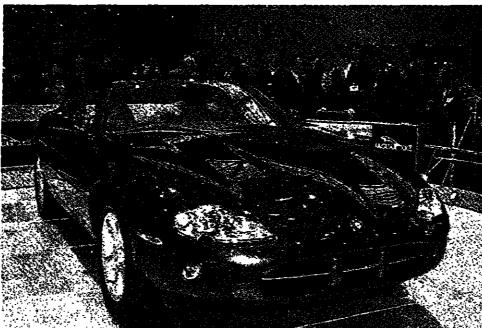
effect equally from 5-10 per

cent increases and decreases

on a given profit measure.

tem," he said.

sharing mechanism.



Saleroom secret: the price of Jaguar's new XK8 has not yet been announced

since Ford paid £1.56bn for the ompany in 1989. capacity to build up to 17,000 Mr Scheele said that one XK8s a year, but does not company in 1989. third of output could be made expect the new model to lead

up of the XK8. Jaguar has

would require managers to account for their decisions. "It

will expose those managers

who are not performing, we

probably have too many man-

agers," he said. The broadcasts, Mr Ayling

said, would give company

news directly to all employees,

an improvement on "the terri-

ble rumour mill we have at the

to any increase in its workforce above the 6,600 employed at present.

engine - the company's first V8 - the XK8 should offer "outstanding" performance akin to the now-discontinued V12-powered XJS, but with much lower fuel consumption. Prices for the new model, which will be available as a convertible and a coupé,

have not been announced, but are expected to be around the top end of the range for the Mr Scheele said the XK8

would compete directly with the Mercedes-Benz SL range. but would be more competitive on price and offer equivalent if not better - performance. room and noise levels.

The bulk of sales are expec-

ted to be in the US. Jaguar has made much of the links between the XK8 and the E-type, with a strong echo of the earlier car's distinctive styling, notably its oval air

Appropriately, the original E-type was first shown to the public in the grounds of a estaurant in Geneva by Sir William Lyons, the company's founder, exactly 35 years ago.

## BA to launch internal TV

Aerospace Correspondent

become the first company in the world to make daily television broadcasts to its staff. The broadcasts will include senior managers being "doorstepped" and interviews with staff involved in industrial disputes. Mr Robert Ayling, chief executive, said yesterday that the 15-minute daily BA news broadcasts could begin in April. They will cost BA £2m-

British Airways plans to

£3m (\$3.1m-\$4.6m) a year, and will go to all 53,000 staff world-Mr Ayling said BA reporters more junior levels. "I want us Mr Ayling added: "If 53,000 peo-

Mr Ayling, who succeeded Sir Colin Marshall as chief executive this year, dislikes systems of company communications which require each level of the corporate hierarchy to transmit information to

to be a modern company, a young company," Mr Ayling said. "I want to get rid of hierarchies and deference to

seniority He said the broadcasts would help to provide employees with better information during industrial disputes, such as that last year when staff at Heathrow Airport objected to

the employment of students. He said BA was thinking of arranging for the broadcasts to be submitted to hotels which hosted crews, as well as to places of work. Staff staying in hotels would have to enter a code to see the broadcasts, but

Hume to support the British

government in the vote on the Scott report last week.

ple are going to be seeing it you have to assume it will be seen by people not in the

Mr Ayling said BA's improved first and business class cabins had helped it win back Japanese passengers it had lost to Virgin Atlantic, Japan Airlines and All Nippon Airways. He said Japanese customers had gone to competing airlines because they did not think the BA product was good enough.

Meanwhile, BA said yesterday that its passenger traffic increased by 13.4 per cent in February compared with the

#### increase and a decrease. Respondents were particularly optimistic about prospects in Oil industry views

Assessment of Investment potentia UK West of Shetland South America Middle East Far East UK North Sea Africa Former Soviet Union Ausitalia

Source: Arthur Andersen

the UK's newest oil province west of the Shetland Islands. The area ranked above Latin America and the Middle East in terms of its overall attractiveness for investment. Most respondents thought there was still significant oil reserves to be found in UK waters.

But a majority thought the number of jobs in the industry

will continue to decline for the remainder of the decade. A majority of respondents also thought there would be an increase in mergers and acquisitions in the UK's oil and gas sector this year. They also believe that the consolidation of the

sector will accelerate in coming years. Robert Corzine, London

## Ulster loyalists warn on violence

By James Harding and John Murray Brown

Leaders of Northern Ireland's loyalist fringe parties yester-day signalled their commitment to uphold the ceasefire until the start of all-party negotiations, but warned of the "serious difficulties" in preventing a return to violence. The leaders of the Ulster Democratic party and the Progressive Unionist party, which represent the paramilitary groups. did not rule out a return to

"full-scale conflict". However, they argued that the paramilitaries deserved credit for their "incredible restraint" in the face of the resumption of IRA terrorist violence.

The two parties also signalled a rift with the Ulster Unionists, the largest unionist party, over the format of elections in Northern Ireland.

The European Investment Bank is to provide a £24m (\$36.7m) interest rate subsidy to small and medium sized enterprises as part of the European Union's £266m peace and reconciliation package for Northern Ireland. The EIB has designated 13 UK and Irish banks to dispense the package, which was formally launched yesterday in Belfast by Ms Monika Wulf-Mathies. the EU commissioner for regional affairs.

Baroness Denton, the Northern Ireland economy minister in the British government, said the subsidy, if fully taken up, will promote

In the first sign of a thaw in the IRA's political wing "at the relations between Dublin and the Ulster Unionists, Mr John earliest opportunity." As the second day of inten-Bruton, the Irish prime minissive consultations got underter said Dublin would reply way in Belfast, Mr Bruton also positively" to an invitation came under attack in the Irish received from Mr David Trimparliament over reports that he ble, the Ulster Unionist party

Amid signs of deepening distrust between Dublin and Sinn Fein Mr Bruton also confirmed that the government intended to hold a further meeting with £240m worth of capital investment in the small business sector. The EIB, the European Union's development bank, has been involved a number of job creation schemes in Northern Ireland but this is the first time the bank has offered subsidy credit terms.

The commission has so far approved projects worth £5.5m, but £45m has been earmarked for non government bodies, and a further £37m for newly created partnerships between Northern Ireland's 26 local councils, and community and

Mr Bruton declined to confirm or deny the reports. However Irish opposition politicians yesterday pressed the prime minister, anxious to exploit any differences between Mr Bruton and his had pressed Mr John Hume, coalition partner Mr Dick leader of Northern Ireland's Spring, leader of the Irish moderate nationalist Social Labour party, which would Democratic and Labour party, look askance at any suggestion

the coalition had planned to

rescue a British Tory govern-

CREDIT SAISON CO., LTD. Warrants (the "Warrants")

NOTICE TO THE WARRANTHOLDERS OF

to subscribe for shares of common stock of CREDIT SAISON CO., LTD. issued with U.S. \$150,000,000

4 1/2 per cent. Bonds due 1996

Pursuant to Clause 3(xiv) of the Instrument dated 25th April, 1991 (the "Instrument") and in accordance with Conditions 7 and 11 of the Terms and Conditions of the Warrants, notice is hereby given that:

Due to issuance by CREDIT SAISON CO., LTD. (the "Company") on 29th February, 1996 of U.S. \$200,000,000 2 1/4 per cent. Bonds due 29th February, 2000 with Warrants to subscribe for shares of common stock of the Company (the "Shares"), the First Unsecured 15,000 Million Yen 1/2 per cent. Convertible Bonds due 31st March, 2003 and the Second Unsecured 15,000 Million Yen 3/5 per cent. Convertible Bonds due 31st March, 2005, respectively, at a consideration receivable by the Company of Yen 2,409 which is less than the current market price per Share (Yen 2,436.30) on the date in Japan on which the Company fixed the consideration, the Subscription Price of the Warrants in effect was adjusted, effective as of 1st March, 1996, as follows pursuant to Clause 3(viii) of the Instrument and Condition 7 of the Terms and Conditions of the Warrants; Subscription Price before adjustment:

> Subscription Price after adjustment: CREDIT SAISON CO., LTD. By: Dai-Ichi Kangyo Trust Company of New York,

as the Disbursement Agent

Yet whenever the state transportation authority, Massport, tries to discover exactly where the pollution is coming from, local businesses engage in old-fashioned fin-ger-pointing. "Everyone blames everyone else for the problem." says Norman Faramelli, a director at Massport. "And there is no way to prove who is responsible."

A new technology developed just across the Charles River at the Massachusetts Institute of Technology (MIT), however, may soon make Faramelli's job a little easier. Three professors at the university - Adel Sarofim, William Peters and John Vander Sande - have come up with a way to trace small-particle pollution to its source.

By imaging particles with electron microscopes and conducting a complex analysis, say the professors, they can identify not only the generic origin of soot - such as car exhaust or factory pollution - but the specific source as well.

According to the MIT professors, every pollution source carries a unique "signature" - a "sootprint", as they have dubbed it.

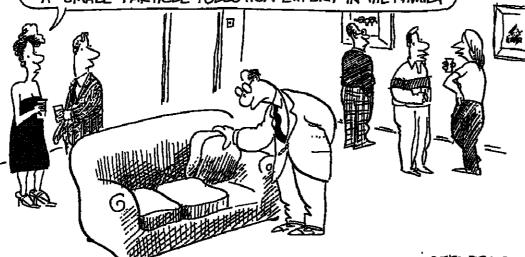
"To start with, we can say if the particle comes from a diesel engine." says Vander Sande. "Then we identify other particles like the kind of lubricating oil used, which fuel it was operated on, and so forth. With a thorough analysis, we can even identify other conditions such as the time of day it was operated or if an aeroplane was taking off or landing.

After 10 years of research, Vander Sande and his colleagues say, they will be ready to conduct some large-scale testing later this year. If everything goes according to plan, many businesses may be held fully accountable for their pollution for the first time.

One of the professors' first customers may be the government of Massachusetts. "This could be a valuable tool for us," says Sonia Hamel director of air quality for the state. "We may request some testing in the autumn. If I were a company putting out a lot of pollution, this technology would make me nervous.

Identifying pollution sources is vital for tackling air quality problems around the world. Yet until now, it has been a very inexact science. In Mexico City, for instance, the murky haze that envelopes the city has been blamed on everything from steel plants and buses to residents using gas burners at home.

THE HOUSEWORK IS NEVER PINISHED WHEN YOU'VE GOT SMALL-PARTICLE POLLUTION EXPERT IN THE FAMILY



## 'Sootprint' clue to pollution

Detecting specific sources of harmful small particles may be about to get easier, writes Victoria Griffith

In an ideal world, pollution would be controlled uniformly at the source," says Vander Sande. "But in reality, pollution is often targeted for control only once it is known to produce an undesirable effect. But if people are dying of cancer in a certain area, for instance, there has been no way to prove it is because they live down wind of a factory 15 miles away."

Mobile sources of pollution such as cars and aircraft present another challenge. Cars represent millions of tiny smokestacks; yet because they are so small and numerous, they are extremely difficult to control. The new MIT technology would help environmentalists assess the exact impact of such

mobile sources. But it will not resolve all pollution analysis questions. For one thing, it identifies only soot - technically defined as small particles. Public focus is still mainly on gas pollution - elements such as ozone

and carbon monoxide. Yet soot has been gaining attention as a particularly harmful form of pollution. A recent series of studies at Harvard University's School of Public Health, for

instance, link small-particle pollution to severe health problems and

early death. Vander Sande knows first hand the health problems soot can cause. His analysis began 10 years ago in the hills of Pennsylvania, when he was asked to study small particles

It will take a long time for MIT technology to make any large impact on air quality control

in the lungs of miners.
The medical community was baffled by some miners' ability to survive decades in the mines without contracting black lung disease while others succumbed after just a few years. The answer, according to Vander Sande, was that the disease was caused not by the coal dust as was widely believed, but by the small particles released when the coal was extracted.

As some areas contained more harmful particles than others, the specific mines worked in were more important than the number of years

spent underground.

Because of health studies like that one, environmentalists are paying increasing attention to small-particle pollution. Yet even as the focus shifts to soot, it will take a long time and a lot of investment for the MIT technology to make any

large impact on air quality control.
"We first need to take samples of pollution at a specific factory to be able to say that soot comes from that factory," says Vander Sande. "Without a basis for comparison, the technology would be meaningless." And Vander Sande admits his operation is still so small that just one or two large-scale studies would keep his equipment tied up for nearly a year.

Despite the problems of imple mentation, the MIT sootprint system is an important breakthrough for pollution control. For the first time, environmental managers could irrefutably link pollution to sources, even if they are many miles away. "Anything that helps us identify where the pollution is coming from is extremely useful," says Hamel. "This technology may help us do that."

Viewpoint · By Derek Osborn

## Action plan for everyone

Brussels is preparing new proposals following a period of both progress and deterioration



The European Union is gearing up for a new round of negotiations on its environment

rest of the decade. The European Commission recently published proposals for updating its last environment action plan, adopted in 1992, and Ritt Bjerregard, the environment commissioner, presented them to the Environment Council for a first preliminary discussion on

Monday.

One of the important background documents to the revised plan is a report which the Commission asked the European Environment Agency to produce last year. The agency's job is to monitor the state of the environment through out Europe and trends in it. Last autumn's report shows a mixed picture - good progress on some issues but deterioration on others. Overall, we are still some way from achieving a sustainable pat-

tern of development in Europe. The reduction and elimination of CFC (chlorofluorocarbon) produc-tion to protect the ozone layer is one of the great success stories of the environment in recent years, and shows what can be achieved by scientists, policy makers and industry working together to solve

It is encouraging to see how the environmental necessity of elimi-nating CFCs is becoming the mother of all kinds of new CFCfree inventions, such as the hydrocarbon refrigerators launched last month by Elstar of the UK.

But the report shows that in other areas we are not yet doing so well. Carbon emissions may possi-bly be stabilised by Europe as a whole by 2000 as planned. But we are clearly only at the beginning of the efforts that will be required in Europe and throughout the world to deal with the climate change problem.

The energy supply sector has

next stage from greater efficiency in the consumption of energy, above all in the transport sector. Everyone is looking for innovation from industry here - and for new proposals from the Commission for targets and measures to promote greater carbon efficiency in

Emissions of sulphur dioxide and the problem of acid rain have been much improved in the past few years as coal use has declined and techniques have been introduced to clean up emissions from power plants and other large combustion plants. Further progress over the next few years is clearly now in the pipeline.

the quality of air in our streets has, however, been deteriorating because of the growth of road traffic and increasing emissions of nitrogen oxides and other pollutants; and although catalytic converters will bring some reduction of emissions from new vehicles, the growth of the number of vehicles is expected to cancel out much of the

We shall need more new technology here, and another round of ightening of standards to deal with these NOx emissions and the growing concern about poor air quality and its possible health effects. Again, the Commission's next set of proposals, following lengthy co-operative studies with the oil and motor industries, are eagerly awaited.

Meanwhile, strategies are beginning to be put in place to minimise or cut the production of waste throughout Europe, to promote recycling and to improve methods of final disposal of unrecoverable

There is still far too much waste being produced, and not yet enough recycling. Also, too much waste is being disposed of to unsa-tisfactory landfill or in old and outworn incineration plants. Major investment will be needed in waste reduction, recycling systems, recovery of energy from waste and improved landfill management over the next few years.

Water quality is gradually improving in most parts of Europe,

greater carbon and energy effi-ciency. More will be needed in the gramme following through from the Urban Waste Water Directive and other European water legislation. But there is more to be done to clean up ground water and other waters affected by diffuse sources of pollution, particularly those arising from agricultural practices. Further reforms of the Common Agricultural Policy could have a major influence here in encouraging less intensive forms of agriculture with lighter use of pesticides and fertilisers. There may need to be new efforts to deal with some of the damaging effects of persistent organic com pounds.

The Commission's new action plan is a bold and wide-ranging document which gives a strong lead on the way forward on all these issues.

It proposes more use of economic instruments to encourage good environmental practice; a new pattern of voluntary agreements with industries to achieve environmen-tal improvements: further mea-sures to promote more sustainable agriculture, and more environmen tally-friendly transport; and measures to strengthen the implementation and enforcement of environmental legislation.

There is sure to be intensive debate on the plan during 1996 both in the Environment Council and in the European Parliament before it is agreed by the new Maastricht process of co-decision. But the significance of the debate goes way beyond the environment professionals in Brussels and capitals. The plan and its implementation needs to involve those responsible for transport agriculture, energy and industry policies at European and national level just as much as environmen

policy specialists. It also needs to involve industry and business, local governmen and non-governmental organisa tions just as much as national governments. The environment action plan is a plan for everyone's environment - and everyone needs to be involved. The agency will pro vide the facts to fuel the

Derek Osborn is chairman of the

&OPTIONS TRADERS

BERKELEY FUTURES LIMITED 38 DOVER STREET, LONDON WIX 3RB TEL: 0171 629 1133 FAX: 0171 495 0022



**FUTURES AND OPTIONS TRADING** Clearing and Execution Service 24 hrs. Tel: +44 171 329 3030

Fax: +44 171 329 3919

PHILLIP ALEXANDER
SECURITIES AND FUTURES LIMITED Veritas House, 125 Finsbury Pavement, London ECZA 1PA MONRS Tel: (++) 171 +17 9720 Fax: (++) 171 +17 9719

FUTURES & OPTIONS

KNIGHT-RIDDER'S FUTURES MARKET DATAKIT FROM \$570

akii, 72 Floor Street, London ECAY 1HY, Tet: +44 (0) 171 842 4083

SPREAD BETTING ON OVER EIGHTY MARKETS We are experts to universe manufacture and constitution of the series of accounts within three days. Current prices claim. Teletics, Page 909. For brochure and applicate form call 0171-287-3667. "Subject to tax low

Margined FOREX віза ганні вістик «ў.

SECURITIES AND FUTURES LIMITE Versias House, 125 Facility Programma London FCLA 1PA TEL 0171 838 2028

PHILLIP AREA

7d +44 1ᡚ4815544 Fb. +44 1ᡚ48166 HOLLEND G MURTHY, CA king Kong BANT DEKKER, UM TAL +852 2520177 Fax +852 25211199

number from the keypad or bandset of your fax machine, 0891 437 80L. Calls are charged at 79p/min cheap rate and 49p/min at all other times. For service outside the UK picase telephone 444 171 873 4378 for details on Citylane Internations

The FT GUIDE TO WORLD CURRENCIES, published in Monday's

Petroleum Argus Daily Oil Price Reports All the spot price information you require for Global Crude and Products markets' — Petroleum Argus CALL NOW for a FREE TRIAL (44 171) 359 8



f you would like to advertise, or require any further information, please contact: Jeremy Nelson Tel: 0171-873-3447 Fax: 0171-873-3062

NOTICE TO THE HOLDERS OF BEARER BONDS OF Yorkshire Water plc ("Yorkshire Water") 5th March, 1996

The offer referred to below is not being made in the United States of America

James Capel & Co. Limited ("James Capel"), part of HSBC I, and Cazenow & Co. ("Cazenove") to purchase the 6% per o ble Bonds due 2008 of Yorkshire Water ("the Bonds"). James Capel and Carentove hereby offer from 8.00 a.m. on 5th March 1996 to punchase all or any of the Bearer Bonds on the following terms (the "Offer").

: James Capel & Co. Limited,

sales, Hoper Clouch, Carenove & Co. (Tel UK +44 17) 588 2828). James Copel & Co. Limited and Carenove & Co. are regulated by The Securitie and Futures Authority: Holders of the Beater Bonds who are in any doubt as to their

publish a Survey Danish Banking **Finance** on Thursday, March 21

The survey will in depth analyse the economic situation, the monetary policy setting, credit demand, and the general outlook for the banking and finance industry.

For more information on editorial content and details of advertising opportunities available in this survey please centact

ERNA PIO, Denmark Tel. +45 33 13 44 41

Kirsty Saunders, UK. Tel. +44 0171 873 4823

FT Surveys

Fee From It Could be a first of the country of the TO BUILD TO PART OF THE PART O Por pros 00400 24. 12 hours of the control of the contr

### **GUESS WHAT 300,000 INFLUENTIAL RUSSIANS GET UP TO EVERY FRIDAY.**

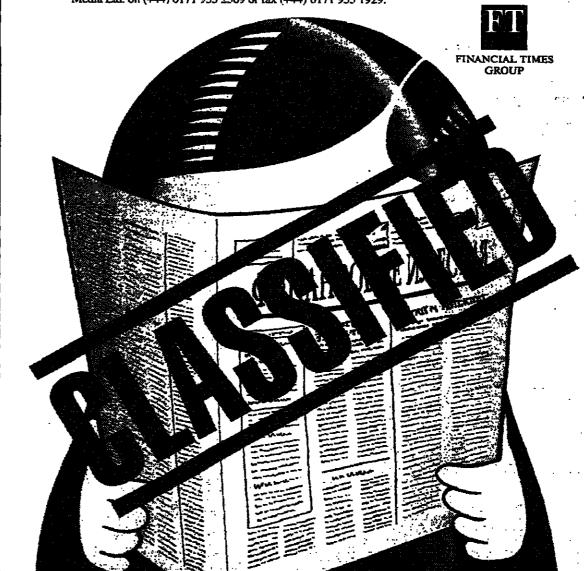
They bury themselves in the Classified Section of their Financial Izvestia

As well as all the national and international news and the informed comment they find in Tuesday's and Thursday's Financial Izvestia, Friday's pink pages have an added attraction.

They hunt through the Appointments and Real Estate, weigh up Business Opportunities and Franchises, check out Travel and Tourism offers and what's coming up in Conferences and Exhibitions, Education and Executive Courses.

They are business minded people, so where better to talk to them about your business than in Financial Izvestia - their authoritative, Russian language business newspaper.

For more information about advertising in the Classified Section, call Universal Media Ltd. on (+44) 0171 935 2369 or fax (+44) 0171 935 1929.



Airdi Hemming mtraband Cornwall

Bull

SERVINGE STATE

The state of the s

180

The second secon

2500

September 1

26 M 122-10

PROCESSION OF THE PROCESSION O

Russia loans

the Bergardina Laura

Section of the sectio

A Maria Service Control of

PASSES

Control of the second of the s

Andrews State of the Control of the

Andrew Co. S.

PATE TO COLUMN TO THE TOTAL TOT

SEE THE WAY IN THE PARTY.

The No.

Herrie Commission

Personal Property of the Late

AND AND THE PARTY OF THE PARTY

Section in the second section in the second section is a second section in the second section in the second second section is a second second

Supplierer Supplierer

المستانية المتالة

Sweet area or come.

ations

veapons

tlaw

marzin ...

cocto un la

Arms . . . . . . . . . . . . .

李线针

Court Fig. 47

gard . . . .

---

21.00

A 3 ::

44.

124 \_----

3

31.5

12.

1

**多:声:** 

9-

क्टर≖र्र र

E V

ş =- ·

أ خامة بيخ

STATE 1 C 1

•

Control of the Contro

E TAN

MA Australia

A-6 1 37 - 1-

1.77

State of the state

جود بديدي

Andrew Company

ಚಾರುತ್ತು ... ..

te panels

. .

TEXT ...

See Brown Committee of

instead we get the weird and wonderful. Thus we see Carol putting on stockings and suspenders and strutting around while Curly hauls on his rubber gloves; and new girl Colette engrossed in conversation with Anita while casually continuing with the flagellation of a punter as he kneels in skirt and ear rings to clean out her kitchen cupboards. Heaven forbid we should get a glimpse of sexual intercourse - that might cor-rupt us! The first series, about -a murder, was pretty bleak and gritty. Episode 1 in the new series suggested that we may be in for something more soapy and banal as the women's cleaning company takes off and the supergirls outwit

the beastly men.

dare not actually show the

women providing the common

or garden services with which

they earn their living, so

Television/Christopher Dunkley

## Candid questions and comedy

ARTS

Under the title The Long Johns, Channel 4 is running 10minute versions of the twohanders created by John Bird and John Fortune for Rory Bremner, Who Else. These semi-improvised confrontations between a mild mannered interviewer and some ghastly authority figure (two-faced politician, grasping head of a privatised utility, and so on) have added tremendously to the Bremner series. So unedited versions seemed a marvellous idea. But in fact they bear out the old rule that the more tightly you edit, the better comedy usually becomes. To see the under-edited versions, complete with corpsing and

the pleasure. If there are any greybeards left in the comedy department of the Birtian BBC, perhaps one of them could bring this rule to the attention of Dawn French and Jennifer Saunders. From their earliest work together on screen they have tended

hesitations, actually reduces

towards the self indulgent, but there have been moments in the new series of French And Sounders, which finished on Thursday, that have been the

It seems odd that performers

of such obvious intelligence should have a blind spot when it comes to knowing when a joke has been worked to death and beyond. The worst example concerns the two provincial ladies, one of whom repeats everything the other has said, five seconds after she has said it, and while she is still talking. It was not funny the first time they did it, and to see it come up again suggests to the viewer that these performers are now beyond editorial control. Still, their Sloanes trying to run an art gallery and getting 12 separate sounds into every vowel are priceless. And Dawn French's lying schoolgirl - "So you went to that rave?"/

"Yeah, wore my Oasis tee-shirt

and took E all the way

through"/"Funny 1 thought I

saw you that evening in your

for breath on the old green

When ambulance-chasing series such as Blues And Twos first appeared on UK television they were condemned here as cynical attempts to exploit misfortune for the sake of ratings: "See the old lady trapped under the lorry!" Experience has shown, however, that not every programme in this category is contemptible. BBC1's two recent 999 International Rescue specials have been enthralling and inspiring. True, each did spring from people's misfortune, but it was their good fortune in which these programmes were inter-

First came the woman whose life was saved by an operation during a long-haul flight, carried out by a professor of surgery, a medical student, and an air stewardess, using a wire coat hanger, a pair of scissors (to go through the chest wall,

gym slip with your dad in the for crying out loud) and ence is that Mark Thomas's high street" - has me flailing brandy for sterilisation. Then, stunts come with attitude. He amongst other stories last week, was that of the Chinese lorry driver whose vehicle fell hundreds of feet down the side of a remote wooded valley, Two weeks ago he went in a leaving him trapped in his cab rabbit outfit to the offices of under a tree trunk, only to be rescued by a whole team of western doctors and engineers who happened to be the next

> ou see few genuinely new ideas on television these days; anything claiming to be new tends to be either a modification or a combination of old ideas. The Mark Thomas Comedy Product on Channel 4 comes as close as possible to being really new, though even this reminds you of Candid Camera and the Beadle dreadfulness. The differ-

people to pass along the road

and who recorded brief bits of

their rescue on camcorder. It

makes a change from all the

hatred and death on the news.

is a funny and fast-fire stand-up comedian, but the guts of these programmes are the filmed sketches.

Live TV, the Daily Mirror cable TV company where they have News Bunny, claiming to be a stand-in sent by an agency. Last week he drove a tank around London trying to get government help in exporting it to Iraq, calling on the DTI and even William Waldegrave's He also interviewed a PR

woman from McDonald's who explained how the hamburger experience should be fun. Then he tested to breaking point the sense of fun of those running a drive-in McDonald's, ordering 50 burgers which he promptly tried to re-sell at cut price outside their front door, taking cows through the drive-in, and arriving with a jazz band on a low-loader. The trouble is that even if you begin by feeling he

has chosen legitimate targets, you usually end up sympathising with the small fry who invariably have to deal with

You could argue that Ruby

Wax was using the technique

All the state of t

before Thomas, but her targets are usually individuals rather than companies, government bodies or ideas. The similarity lies in the way that Wax likes to form a conspiracy with the viewers against the target, whether it is Imelda Marcos or Pamela Anderson. The trouble is that, as with Thomas, the goading and sly asides to camera can eventually set you against the interviewer and drive you into a sort of sympa-thy, however unwilling, with the victim. But in the last episode of Ruby Wax Meets . . . the subject was Burt Reynolds who gave as good as he got, waiting till Rube was preoccupied and then leaning into camera to comment in a stage whisper on this pushy broad, and making sure, when she dived behind him to put on a Burt Reynolds tee-shirt, that we all got a good look at the hefty Wax frame. No doubt our heroine was in on all of this, but the sense of equals fencing was more enjoyable than that of a clever-clogs scoring points off a dimwit.

#### Concert Vienna Concentus Musicus

visit to London by the Vienna Concentus Musicus is always an event to look forward too, especially given that its guiding force, Nikolaus Harnoncourt, is more likely to be found conducting international symphony orchestras such as the Concertgebouw and the Chamber Orchestra of Europe these days and picking up numerous recording awards. So its visit to the Barbican Hali on Monday to kick off its International Chamber Orchestras series (which over the next three months promises concerts from the English Chamber Orchestra and Pinchas Zukerman, Moscow Solo ists and Yuri Bashmet, and Stockholm Chamber Orchestra and Esa-Pekka Salonen) was especially welcome, not least because it offered that increasing rarity, an all-Haydn pro-

The Concentus Musicus is the oldest of the big-parae period-instrument bands. founded over 40 years ago. Alice Harnoncourt continues to grace the front desk of the first violins and there is still something earnest and proselytising about its playing. Current fashions among period performance specialists may permit a degree of tonal flexibility and warmth, tainted per-haps by later 19th-century habits, but, for all its efforts to keep up to date, ghostly flickers of the hair-shirt austerity and maddening mannerisms found in the Concentus Musicus's early Bach cantata recordings, for instance, still

ts account of Haydn's Symphony No.52 in C minor, the opintessential Sturm und Drang work, was superficially impressive and often thrilling; bows bit into strings, rhythms were spat out, and valveless horns whooped with irrepressible if perilous delight. But as an interpretation it was curiously bloodless, relying on broad effects of contrast to make its points, pompous rather than purposeful. Much detail was lost in a congested mass of sound which the dutiful application of all of Havdn's repeats did little to clarify. vanni illustrates the Christian | The arrival of Barbara Bonney to sing two Haydn opera aria from Il mondo della luna and L'infedelta delusa promised to shed a welcome beam of sunlight, but even she seemed disorientated at first, as po-faced in manner as the players.

It was not until the second half of the concert that matters took an upward turn. During the Scena di Berenice a genuine sense of dialogue ensued, and Bonney and the orchestra often produced music making of a quite spe-cial and melting beauty. After this, a rumbustious account of the Symphony No.31 in D did much to save the day, with appropriately rustic playing from the four borns in the first movement, some eloquent solos from leader and principal cellist in the second, a well-pointed minuet and a nicely delineated variation finale. Not the most searching or joyous Haydn performance by any means (who, after all, can compare with Beecham?). but a distinct improvement.

#### Theatre/Sarah Hemming

## Contraband in Cornwall

et's get a few things straight first. There is no monarch in Nick ■ Darke's new play The King of Prussia, neither does it venture anywhere near Germanic territory. The Prussia of the title is Prussia Cove in Cornwall and the self-styled "king" of it is John Carter, the charismatic leader of an 18th-century smuggling

Darke's play, which is brought to the Donmar Warehouse's "Four Corners" season by Cornwall's Kneehigh Theatre, follows the exploits of Carter and his fellow "free traders" but is far from being just a hearty romp, a romantic nostalgia trip or a dry history play. Rather it seethes with life, wit and ideas.

The Carters are running a successful enterprise. George III is on the throne, revolutions are in the air and nervousness makes duties heavy. So free trade is brisk and Carter and his brothers provide a vital service with their contraband gin and brandy.

But while Carter may break. the law of the land, he prides himself on never breaking the laws of nature. "I am an honest man," he protests, constantly, and his code is strict and rigorous: he never marks his goods up more than his customers can afford.

It is only when a wealthy couple from Bath, the Stackhouses, move into the area and the bored Mrs Stackhouse, ignored by her botanist husband, starts playing the smuggling game to her own rules, that things turn

This is a meaty play, with some wonderful running gags and tricks of staging. But like Cornwall's coves, it has many unexpected depths. The piece acts as a critique of capitalism. it also raises questions about the points where justice, conscience and the law part

These themes are woven into an enjoyable script that throbs with a sense of place. You feel the presence of the sea constantly. You also feel that these are people living on the edge, in every sense. They are closer to the continent than to the rest of England – they all know where Brest is, but they have never heard of Bath. And the idea that life depends on wit and energy is reflected the staging: in Mike Shepherd's playful, vigorous production, the versatile cast leap from scene to scene, turning a simple wooden gantry into a clifftop, a ship, a drawing room, a guillotine.

arke gives shape to a Cornish identity that feels vital and real and has nothing to do with clay pipes and clotted cream. He ha evident love for his native dialect and writes rich, earthy dialogue with which the fine cast are totally at home. Carl Grose and Bec Applebee as Eddie Carter and Bessie the landlady give riveting, utterly convincing performances, while Tristan Sturrock as John Carter is splendid: impetuous, wily, proud.

The play's weak spot lies in the characterisation of the Stackhouses, which is fairly flimsy and monotone. But this is a rich and good-humoured work that embarks on its task of navigating Cornish identity with admirable stealth and is full of wicked contemporary barbs. There is no mistaking the irony when, at the end, Eddie Carter gives up smuggling to take up fishing.

The King of Prussia runs to Saturday at the Donmar Warehouse, then tours; the "Four Corners" season continues with plays from Wales, Ireland and Scotland (0171-369 1732).



Charlie Barnecutt and Tristan Sturrock in 'The King of Prussia' by Nick Darke I the stage in a wheeled chair.

#### Opera in Stockholm/Martin Hoyle Don Giovanni

age of Aids? A Don Giovanni with a spe-L cifically Christian bent? Both courses bristle with dangers, from sentimentality to kitsch. Stockholm's Folkoperan (People's Opera) triumphantly avoids all the traps in the most theatricaly riveting production of Mozart's dramma giocoso I have ever seen. Directed by Peter Stormare, with sets by John Conklin, it was premiered by Glimmerglass Opera, New York, last July.

A child in a nightgown wanders on during the overture; through the gauze we see the characters of the drama slumped, seated, sprawled. The child touches them into life; she puts on the cliché Mozart powdered wig and frock coat. and prowls watchfully through the action.

What might have been merely sentimental has a wonderfully practical side - in the Act 1 finale, for example, where the Don, surrounded by armed enemies, is usually miraculously free with one bound. Here Don Ottavio places a pistol at the seducer's head. The music ends to a black-out: a shot rings out: but the lights come back and Giovanni is missing to everyeone's bewilderment. The wise child Mozart comes forward drawing the magician's shutter-gesture across her face to reassure us the Don will be back after the interval. When Ottavio draws the noose tight round Leporello's neck the child snaps its fingers and time stands still as the characters freeze - except for the servant who thankfully

makes his escape. Most controversial of all is Giovanni himself. This Don is half in love with easeful death from his first appearance lolling in post-coital exhaustion with a plainly possessive Donna Anna. He languidly kills the Commendatore with little effort: the old man drops his sword, aghast at something in Giovanni's face: his own and others' deaths perhaps. This Don Juan can hardly walk: Leporello pushes him around

iovanni's end is marked by writhing agony at the invisible Commendatore's amplified voice (Olle Sköld. sounding like Fafner). The child-guardian darts forward to cradle his head as he falls, and then gently raises him, a young, handsome man again. Giovanni looks wonderingly at the others, touches his victims (Elvira, Leporello) who absently brush away this halffelt presence, and wanders into immortality. Despite the hell to which he is consigned by words and music, this Giotenet of hating the sin and loving the sinner. After all,

philanderer throughout, his

ebbing life concentrated on the

only thing he can do. This is brought out in the unbearably

poignant staging of the sere-

nade. His head thrown back,

sprawled in his invalid chair,

Olle Persson sings in an exqui-

site mezza voce to the unseeing

maid, a robust peasant girl

who strips and washes, exud-

ing health and youth from

ture as hell-fire. None of this would work without both acting and singing of superb ensemble quality. Persson is a young baritone who will surely be heard abroad. Fredrik Zetterström's bright-voiced young Leporello, is a good sort driven to exasperation by his demanding master, Anna (Clara Bystrand) benefits from the production's intimate approach, not hurling out "Or sai chi l'onore" but treating it as an emotional journal; Elvira (Christina Hogman) similarly dramatises "Mi tradi", a half-smiling, halfweeping comparison of past happiness with present pain. Klas Hedlund is a superb vocal stylist in both Ottavio's arias.

redemption is as much part of

the conventional Christian pic-

The extremely fine orchestra conducted by Michael Bartosch. This wonderful production where not a note or a word is taken for granted, is double-cast and runs until

#### **Antony Bye**

#### Sept. 13 company. -#### P. . . **愛知され** £ , . . . . . INTERNATIONAL 54000 g verm ş iv. \*\*\*\*\*\* **克尼罗尔**

 $\leq \hat{\epsilon}$ 

#### ■ AMSTERDAM

CONCERT Concertgebouw Tel:31-20-5730573 Radio Kamerorkest with conductor Jos van Immerseel and the Groot Omroepkoor perform Gade's Symphony No. 3 and Haydn's Mass No. 3 (St Cecilia). Soloists Susan Gritton, Bernarda Fink, Ivan Sharpe and Eike Wilm Schulte; 3pm; Mar 9

#### **■ BERLIN**

Komische Oper Tel: 49-30-202600 DANCE Romeo and Juliet: a choreography by Tom Shilling to music by Prokofiev, performed by the Ballett Komische Oper, 7pm; Mar 9 OPERA Deutsche Oper Berlin Tel: 49-30-3438401 Die Zauberflöte: by Mozert. Conducted by Stefan Soltesz and

performed by the Deutsche Oper

Bertin. Soloists Include Peter

Seiffert, Kirsten Blank, Marcia

Bellamy and Clemens Bieber; 7pm; Mar 11

#### ■ BONN

OPERA Oper der Stadt Bonn Tel: 49-228-7281 La Rondine: by Puccini. Conducted by Eugene Kohn and performed by the Oper Bonn; . 8pm; Mar 7

#### **■ CHICAGO**

THEATRE The Goodman Theatre Tel: 1-312-443-3822 Arcadia: by Torn Stoppard.

Directed by Michael Maggio, starring Kristine Thatcher, Patrick Clear, Fleur Phillips and Steve Cell; Mon Mar 11: 7pm, Tue - Thur, Sun 7.30pm, Fri. Sat 8pm, Thur, Sat, Sun also 2pm; from Mar 11 to Apr 14

#### **■ HAMBURG**

CONCERT Musikhalle Hamburg Tel: 49-40-346920 Philharmonisches Staatsorchester: with conductor Gerd Albrecht, soprano Julia Faulkner and tenor Wolfgang Fassler perform works by R. Schumann and Zemlinsky; 11am; Mar 10, 11 (8pm)

#### **LAUSANNE** CONCERT

Salle du Métropole Tel: 41-21-3122707 Orchestre de Chambre de Lausanne: with conductor Jesus Lopez Cobos and violinist Julian Rachlin perform works by Schubert,

Bruch and Schoenberg; 8.30pm; Mar 11, 12 (8pm)

#### **LEIPZIG**

OPERA Oper Leipzig Tel: 49-341-1261261 Il Trovatore: by Verdi. Conducted by Neuhold and performed by the Oper Leipzig and the Gewandhausorchester. Soloists include Scharkowskaya, Hoffstedt, Grisales, Tsumaya, Noack and Gaviola; 7pm; Mar 9

#### **■ LONDON EXHIBITION**

to Mar 10

OPERA

National Gallery Tel: 44-171-7472885 In Trust for the Nation: Paintings from National Trust Houses. The display brings together more than 90 paintings that can still be seen in 29 of Britain's country houses. It includes works by Sir Anthony van Dyck, Philippe Mercier, William Hogarth, Andrea del Sarto, Albert Cuyp, Jan Steen, Titian, Velázquez and Rembrandt,

Royal Opera House - Covent Garden Tel: 44-171-2129234 Semele: by Handel. Conducted by Charles Mackernas and performed by The Royal Opera. Soloists include Ruth Ann Swenson, Judith Howarth, Felicity Palmer and Michael Chance; 7pm; Mar 8

#### **LUXEMBOURG OPERA**

Théâtre Municipal Tel: 352-470895 Prince Igor: by Borodin. Conducted by Valery Gergiev and

performed by the Kirov Opera; 8pm; Mar 8, 9, 10

#### **MUNICH** CONCERT

Philharmonie im Gasteig Tel: 49-89-48098625 London Philharmonic Orchestra: with conductor Franz Welser-Möst perform Mozart's Symphony No. 34 in C, Brahms' Symphony No. 3 in F, and Dvorák's Symphony No. 7 in D

#### ■ NEW YORK

minor, 11am; Mar 10

CONCERT Carnegie Hall Tel: 1-212-247-7800 Toronto Symphony Orchestra: with conductor Jukka-Pekka Saraste and violinist Frank Peter Zimmermann perform Beethoven's Violin Concerto in D major, Op. 61, and Sibelius' Symphony No. 6 and Symphony No.7; 8pm; Mar 9 **OPERA** 

**New York State Theater** Tel: 1-212-875-5570 Der Rosenkavalier, by R. Strauss. Conducted by Alexander Sander and performed by the New York City Opera; 8pm; Mar 9

#### **PARIS**

CONCERT Théâtre des Champs-Elysées Tel: 33-1 49 52 50 50 Kyung-Wha Chung and Peter Frankl: the violinist and planist perform sonatas by Schubert and R. Schumann; 11am; Mar 10 THEATRE

Comédie Française, saile Richelieu Tel: 33-1 40 15 00 15 Dom Juan: by Molière. Directed

by Simon Eine. The cast Inludes Alian Pralon, François Beaulieu, Dominique Constanza, Yves Gasc, Martine Chevallier and Catherine Sauvai; 8.30pm; Mar 7, 10, 11

#### ■ SAN FRANCISCO

EXHIBITION California Plaza of the Legion of Honor Tel: 1-415-863-3330 Picasso, the Sculptor: this exhibition of some 15 works celebrates the re-opening of the Legion of Honor: to Mar 10

#### ■ STOCKHOLM CONCERT Konserthuset Tel: 46-8-7860200

 Violinist Benjamin Schmid and cellist Tanja Tetzlaff; 7.30pm; Mar 11 **■ STRASBOURG** DANCE

Théâtre Municipal de Strasbourg -Opéra du Rhin Tel: 33-88 75 48 00 Nederlands Dans Theater 1; performs Jiri Kylian's choreographies No More Play, Petite Mort, Overgrown Path, Sweet Dreams and Sechs Tänze; 8pm; Mar 8, 9

#### **■ SYDNEY**

CONCERT Concert Hall Tel: 61-2-250-7111 Hesperion XX: with conductor Jordi Savali and soprano Montserrat Figueras perform works by Guerrero, Correa, Monteverdi, Scheidt, Cabezon and others; 8.15pm; Mar 7 **OPERA** 

Drama Theatre, Opera Theatre, Playhouse Tel: 61-2-250-7127 A Midsummer Night's Dream: by

Benjamin Britten. Conducted by Tom Woods and performed by The Australian Opera, Soloists include Gillian Sullivan, Elisa Wilson, Kirsti Harms, Christopher Josey, Davis Collins-White and Michael Raymond Martin. Part of the Sydney Festival '96: 7.30pm: Mar 8

#### **THE HAGUE** CONCERT

AT&T Danstheate Tel: 31-70-3609931 The Gambler: by Prokofiev. Conducted by Valery Gergiev and performed by the Kirov Opera; 8pm; Mar 11, 12, 13

#### ■ VALENCIA CONCERT

Palau de la Música i Congressos Tel: 34-6-3375020 Orguesta de Valencia: with conductor Manuel Galduf perform works by Beethoven and Stravinsky: 8.15pm; Mar 8

#### ■ VIENNA

CONCERT Konzerthaus Tel; 43-1-7121211 Alexel Lubimov: the pianist performs works by J.S. Bach/ Czerny, Ustwolskaja and Debussy; 7.30pm; Mar 8 **OPERA** 

Wiener Staatsoper Tel: 43-1-514442960 Maria Stuarda: by Donizetti. Conducted by Jan Latham-König and performed by the Wiener Staatsoper. Soloists include Agnes Baltsa, Mara Zampieri, David Kuebler and Kurt Rydl; 7.30pm; Mar

WORLD SERVICE BBC for Europe can be received in western Europe on Medium Wave 648 kHZ

EUROPEAN CABLE AND SATELLITE **BUSINESS TV** (Central European Time) MONDAY TO FRIDAY

NBC/Super Channel: 07.00

FT Business Morning

European Money Wheel Nonstop live coverage until 14.00 of European business and the financial markets

17.30 Financial Times Business Tonight

Midniaht Financial Times Business

#### **COMMENT & ANALYSIS**



Ian Davidson

## Orthodox doctrine reversed

The big idea at the European Union's inter-governmental conference will be a proposal to move towards faster integration for an inner core of member states

It is now clear that Mr John It will be pressed, not by the Major will be offered a large British, but by a powerful backhand victory in the intercoalition led by France and governmental conference on Germany. And it will not be the future of the European intended to promote some Union which begins in Turin kind of loosening of the Union; at the end of the month. He on the contrary, it will open may not like the victory when the door to the formation of an inner core of member it comes, but that is politics: there is no gratitude. states willing to move towards Mr Major set out his vision

greater integration to circumof the European Union in a vent British obstructiveness. speech at the University of In other words, what will be Leiden 18 months ago. He said proposed is not just the wholehe wanted to see a more flexisale reduction, or even elimination, of national vetoes on ble Union, in which some member states would move detailed policies in the Union. ahead of the rest, to integrate It will be the virtual removal more closely in certain areas. of national vetoes on the The traditional idea of a unifuture general direction of European integration.

Advance indications of a tary community was, he helieved, out of date. A flexi-

sity of its many members.

speeds: the programme for

conomic and monetary union

allows for some member states

to meet the economic condi-

tions for joining the single

currency before others. But it

was heresy to advocate an à la

carte - or pick-and-choose -

Most member states, led by

including a wholesale

Germany, want far-reaching

reforms, to be agreed at the

inter-governmental conference

increase in the number of

decisions subject to majority

voting. But since the UK gov-

ernment has already made

clear that it will reject any

reform of such significance

there is a danger the confer-

As a result, there is now the

prospect of an extraordinary

reversal in EU orthodoxy. For it is almost certain that the

big idea in the coming confer-

ence will be "flexibility", or multi-track integration.

ence will end in impasse.

approach to integration.

in all institutions.

ble, multi-track Europe would push for a radical new kind of be essential if the Union was flexibility in the European to be enlarged to the east, and Union have been building ever if it was to contain the diversince France and Germany included the idea in a joint paper published last December. This said: "The temporary These propositions were ienounced as a foul attack on the orthodox doctrine of Eurodifficulties of one of our pean integration – that all EU partners to keep up with the member states must partici-pate equally in all policies and forward movement ought not to be an obstacle to the Union's capacity for action They might approach a com-mon destination at different

"For this reason, we judge it desirable and possible to introduce into the [European Com-munity] treaty a clause of a general nature which would permit states which have the will and the capacity to develop between themselves closer co-operation in the single institutional framework of the Union." (These last words mean that any new inner core would still be part of the Union.)

The Franco-German proposal only came into focus last week, when the principle of flexibility and the option of faster integration for an advance guard of states were openly endorsed by the Commission in the paper it has prepared for the intergovernmental conference. It suddenly became clear that this is going to be the central issue at the conference.

The Commission is, in some sense, the moral guardian of the European Community treaty and the orthodoxy of European integration. So if the Commission endorses a radical departure from the doema of a unitary community, we can be fairly sure that sons, one long-term, the other the idea must have wideshort-term. The long-term reason is that spread support among mem-Mr Major is right: in a much ber states: which means it

really may be on the cards. Last week France and Germany took this principle of flexibility a step further, with a joint proposal to introduce a system of "constructive abstention" into the development of a common foreign and security policy. Under this, no member state would be obliged to take part in a joint action against its will, but it could not prevent others from going ahead together. The question is: why now? It

is easy to see that there could be total deadlock over the future development of the Union between the UK and its partners at the interrovernmental conference. If that happens, it is also easy to imagine that the others would look for ways to side-step the British obstacle. But why are France and Germany setting up this radical - some would say divisive - attack on the ideal of a unitary community, even before the conference?

There are, I think, two rea-

in Europe. That expectation is now, I believe, widely discounted in other capitals. Mr Blair may or may not be more pro-European by instinct. But nothing he has said indicates he is prepared to endorse anything like the German agenda for a radical reform of the European Union in a more federalist direction. If so, the main result of

openly arguing that the inter-governmental conference

extended beyond the next Brit

ish general election, in the

expectation that a Labour

victory would bring a UK gov-

eroment more accommodating

enlarged Union, multi-track

integration will be unavoid

icies immediately.

dragging the conference out beyond the British election would be to relieve John Major of any incentive to negotiate. It would thus intensify the conflict between the UK and the rest; but without any sufficient prospect of a better deal later. In which case, it makes

sense to reverse the order of events, and start by offering the British what they most appear to want: the right not to take part. "There are two tragedies in

life," said George Bernard Shaw. "One is not to get your heart's desire. The other is to The Growing Business · Richard Gourlay

## Europe left standing on the starting blocks

American venture capitalists are quicker to invest in technology-based newcomers

The Commission is already The latest figures on US initial arguing that the Common Agricultural Policy cannot public offerings of shares in simply be extended to eastern oung companies demonstrate Europe, because it would inflict damaging inflation on the impressive ability of American venture capitalists those countries by forcing up to nurture growing businesses. food prices. If countries in In 1995 more than \$8.1bn was eastern Europe are to join the raised in such offerings by companies that had received Union, they will not be in a position to take part in all polpart of their private equity funding from institutional venture capital funds. This was The short-term reason is Mr Tony Blair, the leader of the double the previous year's figure, according to Ventureone, the California-based invest-UK Labour party. There was a time, not so long ago, when Germans and others were ment research group which

collates the figures. More than \$5.6bn of the 1995 total was raised by 163 companies backed as start-ups or as "traditional early-stage deals". Another \$2.5bn was raised by 40 companies in leveraged buyouts or development capital. One reason so much is invested in high-tech start-ups. Ventureone suggests, is that venture capitalists can sell to the public markets while the companies they have backed are still immature. The average communications and networking company, for instance, was making a \$3m

tion and had 121 employees.

net loss at flotation, had sales of only \$13m, had raised \$19m of private equity before flota-

The average electronics and computer company was losing \$700,000, had sales of \$25m, had raised \$14m and had 146 employees. It had enjoyed venture capital backing for about five years. The Ventureone report also looks at the number of

venture backed businesses that made their founders wealthy. Fourteen entrepreneurs held a personal stake at the time of flotation of \$50m, compared with eight the previous year. Most of these fortunes were made in technology stocks. But whereas communications and computer networking companies formed the largest segment of the initial public offering class in previous years, software companies dominated in 1995 and not just because of the Netscape flotation. The hottest area was client-server architecture, the networks that

To underscore the scale of venture-backed success in 1995. the companies continued to climb after their first trading day. On average, shares of the 203 venture-backed companies that floated in 1995 rose by 53 per cent, compared with 30 per cent for the companies floating in the previous year. Venture capitalists in Europe

link PCs to a larger central

will view these figures with considerable envy. They say they would back more young technology-based businesses if they could float the companies they backed earlier. But it can companies on European markets.

In the UK, for example, relatively few start-up companies have floated in the past five years. Most of those that have floated were biotechnology companies such as British Biotech and Celltech, allowed to the main market under a modification to the rules requiring a three-year trading record. More recently London's Alternative Investment Market has shown some signs of being a market for young companies but has still to prove it can raise large amounts of capital

Mr Rolf Selvig, marketing director of Ventureone, says the lack of public markets for young high-tech companies is Europe's Achilles' heel as regards the continent's ability to create wealth. "In the UK there is no exit

for investors in the venture capital-backed companies so the motivation to make investments is being removed right up front because the investors can't get back out," says Mr Selvig.

Like other US observers of European stock markets, he says exchange officials are too focused on protecting investors against business risk. They should instead focus on ensuring companies come to the market with accurate listing particulars and leave investors to make their own decisions about business risk.

The shape of US companies when they came to market in 1995.

n) 121 equity 19.0	14.2	991 25.0	22.2	550 10.6	188 - 1 12.4
equity 19.0	14.2	25.0	22.2		161 - 1 12.4
		<del>-</del>		10.6 89 6 :	12.4
	25.1	5C1	2.0	89 G.	2130
				3000 1. 1	1
-3.0	-0.7	-6.7	-5.4	3.2	0.4
. 81	.123	<b>700</b>	. <b></b>	.11.5	1
ation 4.4	5.9	5.4	5.9	5.7	. 4.0
<b>19</b>	19	4	1 (P - 4)	د 10 <u>-</u> د	
	ation 4.4	ation 4.4 5.9	ation 4.4 5.8 6.4	ation 4.4 5.9 5.4 5.9	128 7 108 79 115

European viewpoint: John Major set out his vision 18 months ago

For the most influential

theatre reviews in London, see

The Times, The Evening Standard

or the concierge at The Savoy.

Luxury Breaks at The Savoy range from £125 per person sharing a room

FOR DETAILS OF LUXURY BREAKS AT THE SAVOY'S SISTER HOTELS: THE BERKELEY AND CLARIDGE'S

IN LONDON, AND THE LYGON ARMS IN THE COTSWOLDS, CALL OF 1-812 9080, MEMBERS OF The goding Basels of the World

(including breakfast). For further details call 0171-S364343 or fax 0171-2406040. THE SANOT

### ·LETTERS TO THE EDITOR·

Number One Southwark Bridge, London SE1 9HL

We are keen to encourage letters from readers around the world. Letters may be fixed to +44 171-873 5938 (please set fax to 'fine'), e-mail: letters editor@ft.com Translation may be available for letters written in the main international languages.

### A choice that would destroy individual liberty

From Mr Stephane Aderca. Sir. Edward Mortimer emoans the loss of collective choice in favour of individual choice ("Surfeit of good things", February 28). But the collective "choice" he advocates is nothing more than the destruction of individual liberty. Could anyone claim that freedom of religion still existed if it were decided that a vote were to be taken as to which religion "we" shall adopt, and the result is binding on all? Of course not. Having one vote in millions as to which religion to

adopt is not the same thing as to be able to choose one's religion. Democracy and liberty are not equivalent. Democracy is about the source of government power, liberty about its extent. If a democratic government uses coercion without restraint, citizens are no more free than

under a dictatorship. Mr Mortimer is correct in his assertion that "if every choice is left to the market, the right to vote becomes meaningless. because the people you elect have no power to change anything". But this is the way

things should be in a free society. Liberty means that coercion should be used only to prevent coercion and dishonesty. The power of politicians to change things is based on the power to coerce. In a liberal democracy, this coercion should not exist.

democracy when every citizen knows that the result of the next election could mean coercion imposed by fellow citizens. In fact, one could say that the hallmark of a liberal, versus a totalitarian. democracy is that the result of

There is no liberty in a

the best guarantee that freedom can never be threatened by any election. The loss of collective "choice" or "freedom" is not a great loss. There is no such thing as group "liberty", which is nothing but the freedom of the group to oppress

elections don't matter. This is

Stephane Aderca, 4a Norwood Villas Waterworks Road, Birmingham B16 9DE, UK

individuals. Only individual

liberty is meaningful.

#### **Downside of utility mergers**

From Mr Christopher J. Clarke. Sir, David Lascelles' article Power groups in overseas charge" (March 5) highlights why utilities are active in oversess mergers and acquisitions as growth dries up in the developed world and the industry restructures on global lines. It might be worth dwelling on the dangers by

way of balance. Academic research shows very small or negative returns to acquirers' shareholders against 25 per cent to 30 per cent returns to vendors' shareholders. Is there a compelling reason why newly liberated and fledgling utility managements should beat the

experts on these averages? Deploying core competencies across geographic or cultural boundaries is notoriously difficult. Cross-border M&A

is, therefore, even more hazardous. Arguably, investors can invest in growth utilities overseas directly. Why should they pay novice diversifiers to do so for them? Many leading investment institutions we have spoken to are rather keen that utilities remain low-risk, steady return investments in

their home markets. We are not arguing against M&A in the power industry. It has an important role to play in global restructuring. We are arguing for great caution and careful analysis and planning!

Christopher J. Clarke, vice-president - utilities, A.T. Kearney, visiting professor, Henley Management College, Lansdowne House, Berkeley Square, London W1X 5DH, UK

demand and depends on the

## **Best for London Stock Exchange**

From Mr Steve Hull Sir, I would like to set the record straight on a number of comments concerning the London Stock Exchange in George Graham's feature "Blood on the road to the promised land" (March 5).

The first is that the Stock

Exchange Tower, which is the main freehold asset of the exchange, is not half empty, as suggested. It has three substantial tenants, and in December 1995 heads of agreement were reached with the London International Financial Futures and Options Exchange, which means that when it begins occupying more than 75,000 sq ft of space in the middle of this year, there will be no vacant space. In line with our business

plan, and against a projection of future space management

needs. I have been managing an aggressive policy which will ensure that we generate income from any exchange property likely to become surplus to our needs. Wherever possible, leases

have been surrendered or disposed of on sound terms Where this has not been possible, we have successfully sub-let all of our surplus property. In planning for the exchange's future, we have considered all options available to us and, given that we own the tower, together with the cost of moving, I believe our strategy is both the cheapest

Steve Hull. head of personnel & property. London Stock Exchange London EC2N 1HP,

#### Schemes for reducing unemployment not comparable

From Mr Gerald Holtham. Sir, The cost of job creation is relatively modest, as Mr John Edmonds said (Letters, February 29), because the cost of keeping people on the dole in the UK is so high. Moreover, it is possible to devise schem which reduce the NAIRU (the rate of unemployment at which inflation accelerates) and are therefore not inflationary.

Mr Edmonds mentioned an Institute of Public Policy Research scheme to create half a million iobs for less than £2bn a year. Your readers may have the impression that it is a

modest version of another plan, by the Full Employment The IPPR scheme is Forum, also mentioned by Mr Edmonds, which sought to create a million full-time jobs at a cost of 1.5 per cent of gross domestic product. However, the schemes are not comparable since the Full Employment Forum plan entails expansion of aggregate

economy being able to sustain such an expansion without inflation going out of control. Depending on where the economy is in the economic cycle, it may sometimes be

appropriate and sometimes

explicitly presented as additional to anything that can be achieved for unemploymen by the appropriate setting of demand side (fiscal and monetary) policies. It is aimed at the long-term unemployed, people who would mainly not benefit from a general boost to demand before it triggered rising inflation.

For what it is worth, I would guess that demand policies could reduce unemployment by some half-million. The IPPR

scheme on top could give a total reduction of about 1m. A further reduction would require radical changes to the tax and benefit systems and perhaps to the wage system. I fear that an attempt to reduce unemployment durably by 1m or more purely through demand reflation would be inflationary.

Gerald Holtham, director, Institute for Public Policy Research, 30-32 Southampton Street, London WC2E 7RA, UK

FINANCIAL TIMES

Number One Southwark Bridge, London SE1 9HL Tel: +44 171-873 3000 Telex: 922186 Fax: +44 171-407 5700

Wednesday March 6 1996

MENDA? MARCHAIL

Manage and the second s 

system in red

A STATE OF THE STA The second secon The restriction of the second Met 15 July . The state of the s

S Bartisti The second secon plans Hair must be at the series Test vortautive onless.

Management of the second Minde the manager 東東流は まっしてごうごう the barrens and the same 類作品が行うない。 Weether .... MAN WILLIAM TEN **新**教教的工作。 นั้น เรียวระการ

The second transfer embered



mer af after an er Staat Me Street actuals SAMBINETY BELL gailty to out the transition or the incider of all to Will eviste, ALLO TA The a great state of the Service of the service

iris soar Bulgari — Tarihi Water to the Contract of the C N. N. San Transmission The second secon dig 152

PART TO THE PART OF THE PART O ing industry Description Profes BETTER ASSESSED. 

A PERSONAL PROPERTY.

ينوسنان واستديمتو المقاهين

The growing and

(**) 第6**7 (1) (2) (2)

Marie Company t in Sweden

Me House 1:20 Mary Parks Bed themes he had State of the state ALL THE REAL PROPERTY. ALTER ALTER ALTER AND ALTE The second secon

Mary Secretary Control of the Contro

manger to be a first price of the second of

And the settles to respond the settles of the settle of the settles of the settle

to the state

The second secon

State of the state

as a whole was responsible.

ited fine, where they - rightly regard the threat of going to jail under present laws as remote.

The commission was right, however, to stop short of recommending that individual directors should be jailed for the carelessness of the company as a whole. In practice, that provision could have undermined the new proposals, by complicating prosecutions with exactly the questions of individual responsibility which the proposals

#### **COMMENT & ANALYSIS**

### The private sector must take a greater role in helping Americans to move from the old economy to the new, says Robert Reich

Turmoil over at Buchanan may fade from the political scene in the run-up to Novem Tokyo rescue ber's presidential election. But his campaign is fuelled by anger over the falling living standards of many Americans

The long-suffering Japanese promises reforms once the funds public is making its voice heard in the row over plans to bale out have decided to call this bloff. By public is making its voice heard in the row over plans to bale out financial institutions with Y6850n opposing the rescue, they are indicating their willingness to risk a run on the banks. They have decided it is better to see what (\$6.5bn) of taxpayers' money. Popular anger at the scheme to rescue companies that over-extended themselves in property is so great that the government may find it impossible to push the proposals through parliament. That need be happens if the housing loan comministry's warnings. no disaster. On the contrary, political leaders should regard the

through radical reforms.

in handling the aftermath of the

property boom. Naturally, it has

strived to protect its own interests

and those of the financial institu-

bully politicians - and the public

- into accepting its view that

finance is so complicated that it

Unfortunately for the bureau-

crats, its claim to expertise has

been undermined by the property boom and bust, which also exposed widespread incompetence

and crime in financial markets. In

the past, the Japanese were willing to trust the ministry. But the

public has now rebelled against

the suggestion that their money

should be used to refinance what

has proved to be a rotten system.

The ministry argues that, with-

out the rescue, the country's

financial institutions could be

avoid backing a foreign policy ini-

tiative without blocking it either.

But even in these areas. Mr Rif-

kind is proceeding cautiously. He

is careful to state that the new Mr

Europe would be answerable to

EU member governments, not the

Commission. He sees the principle

of "constructive abstention" as a complement to the right of veto,

not a substitute. And unlike the

French, he is adamant that coun-

tries cannot be expected to pro-

vide money for initiatives from

Mr Rifkind's other ideas - better

planning, faster reflexes and more

frequent meetings between senior

diplomats - are too sensible and

innocuous for anyone to raise

much objection. They have also

been carefully formulated so as to avoid any danger that EU's for-eign policymaking machine could

escape the member states' control.

However cautious its proposals. the UK government's plunge into the EU foreign policy debate is

which they have abstained.

should be left to experts.

the public's lead. The half-baked impasse as an opportunity to push Until now, the powerful finance ministry has made all the running a run on banks, as the ministry has warned. If there were, there would still be time for a rescue, but taxpayers would then be in a better position to judge whether public money should be used. tions in its charge. To achieve its ends, the ministry has tried to So Mr Ryutaro Hashimoto, the

prime minister, should change his mind. The jusen are not the only institutions in trouble over property loans. A botched rescue would set a dangerous precedent. Above all, politicians should insist that the price of any rescues

must be radical reform of the financial system. Hitherto, the bureaucrats' response to the crisis has been a series of ad hoc adjustments to the regime. But it is painfully clear that a regime which has vested so much discretionary power in the hands of one ministry has failed. If there are to be bale outs, there must simultaneously be an overhaul of the financial system to make it more open, more transparent and more

Cautious steps

long overdue. Equally welcome is The suggestions for upgrading the European Union's external policy the effort to maximise agreement that were laid out in Paris yesterwith France. Any external policy day by Mr Malcolm Rifkind are with teeth must begin with convery British limited, practical and intended as a counter-weight to sensus between the two EU members with the widest global reach more ambitious ideas. They are and the ability to project military welcome as far as they go. force overseas.

The foreign secretary moved His caution, moreover, is understandable. Mr Rifkind is right to closer to Britain's EU partners, notably France, by endorsing the say that institutional tinkering is idea of a "Mr Europe" who would no substitute for a genuine will to personify the union. He has alsoact. In areas where the sovereign iven a guadhed-welcon Franco-German proposal for a syschanges will conceal those differtem of "constructive abstention that would allow countries to

Indeed, he might have been quoting from Mr Richard Holbrooke the caustic US observer when he observed that the EU lacked the "coherent world vision" which underpinned the policies of sovereign nations.

But he is too complacent when he calls this situation a fact of life which is not to the EU's discredit Whatever institutions they adopt the moment when European nations have no choice but to co-operate more closely could come more quickly than most realise. The isolationist mood in the US means that Europe could well be left on its own to cope with the

next regional crisis. Mr Rifkind is right to say that neither institutions nor proce dures will solve this sort of prob lem. But Europe's squabbling over institutions is only a symptom of a deeper reluctance to accept the need for collective action. Once that need is acknowledged, the institutional questions may solve

which is unlikely to subside. Wage disparities have been widening and real wages sliding since the late 1970s. Although the Clinton administration has restored job growth and shrunk the deficit, and median wages have stopped falling behind, the long-term challenge of

panies collapse than believe the The politicians should follow rescue plan for the housing loan companies should be scrapped. If they fail, there may or may not be

storing and updating data. In every advanced economy, demand is rapidly shifting in favour of people with such skills and against people without them. The earnings of the former are rising, the earnings of the latter are dropping (or, as in much of western

Europe, they are unemployed). Those who remain trapped in the old economy either do not know what skills are needed, or cannot afford the costs of getting them, or feel too old to learn, or cannot easily uproot and move to where good new jobs can be found. As a result, most Americans who lose their jobs and find new ones never return to revious levels of earnings

restoring wage growth remains.
But while Mr Buchanan has iden-

tified the right issue, his solutions

are irresponsible and dangerous. The fault does not lie with immi-

grants, the World Trade Organisa-

tion, the North American Free

Trade Agreement, welfare mothers,

affirmative action, venal corpora-tions or rapacious chief executives.

It lies in two huge changes in the

The first is the enormous pres-

sure the old mass-production sys-tem that used to provide good

middle-class jobs has come under

from new information technologies

and global trade and investment.

This has caused the economic earth to crack open, leaving tens of mil-

lions of Americans trapped on the

Contrary to the views of some

neo-Luddites, the result is not fewer

jobs. There are many new ones, but

the good ones lie on the other side

of the divide. They require technical

or problem-solving skills and the

capacity to acquire new skills con-

tinuously. Machinists are being sup-

planted by operators of computer-controlled machine tools; garage

mechanics, by automotive techni-

cians who can diagnose and repair

the electronic gadgets which control

today's cars; clerks by office techni-

cians skilled in using computers for

wrong side of a great divide.

way the economy is organised.

The second big change is that the implicit social compact which used to bind corporations with their workers has come undone. Thirty years ago, a company that earned healthy profits could offer its employees secure jobs with rising wages and benefits - and their communities could count on a steady tax base.

If the economy turned sour. employees might be laid off for a time. But when the economy revived, the work would return. The very term "lay-off" suggested a temporcry separation. Unions played an important role in enforcing this compact, but it was enforced primarily by public expectations - an unspoken but widely-accepted norm that when a company did well, its employees and community would also do well. For a business not to share the benefits of its success would have been unseemly.

Those days are over because of intensifying competition for invest-ment. Deregulation has forced airlines, telephone companies, utilities, distribution networks and



## A hand across the great divide

financial markets to mind the bottom line. Information technology has shrunk transaction times between suppliers and customers. Easy access to capital markets has allowed small companies to grab market share from big ones.

Add the convenience with which vast amounts of capital can now be moved at the push of a key on a personal computer and the result is 'electronic capitalism" – a worldwide system for immediately redeploying financial assets where they

can earn their highest return. Gone forever is the gentlemanly investment system that once allowed chief executives to balance the interests of shareholders against those of employees and communities. Now, chief executives who *don't* abandon their employees and communities when the bottom line requires it risk trouble – while those who do are able to pocket multi-million dollar bonuses and stock options. Even the term "layoff" no longer means what it used to. Most lay-offs are now permanent. A new word is needed to describe this phenomenon - perhaps "cast-offs", rather than layoffs. This change in the implicit social contract makes it harder to deal with the more competitive business environment. The modern corporation's sole focus on maximising shareholder returns makes it less able to ease the workforce's

transition to the new economy. Nations as a whole are better off when employers teach their workers basic or industry-wide skills beyond what is required to function effectively in their current job. National economies as a whole are more flexible and productive when employers ensure workers who are no longer needed get trained for and placed in new jobs. Yet, because shareholders don't reap the full benefits of such investments. even the most enlightened chief executive is loathe to make them to

the extent that society needs. What may be rational for each individual corporation is irrational for society. Almost three-quarters of national output comes from people; only a quarter from machinery. The

quality of a nation's labour force is the engine of economic growth; physical capital is the caboose.

If a significant portion of the workforce lacks the skills to succeed in the new economy, everyone's standard of living is imperilled. Widening inequalities and insecurities also contribute to crime, delinquency and threats to public health.

Can government fill the breach? Only partly. While government can help people get job skills and offer support when unemployed, massive accumulations of public debt over the last 15 years require austerity. As President Clinton noted in his State of the Union address, "the era of big government is over".

To be sure, government can make more effective uses of its resources. For example, the administration has taken steps to change the unemployment insurance system designed to provide income support during temporary lay-offs - into a re-employment system designed to move people rapidly into new jobs. The President wants to consolidate

federal job-training programmes into vouchers which unemployed or low-wage workers can use at community colleges or technical schools to obtain skills. He has also proposed significant tax deductions to offset family expenses for univer-sity education or job training.

But the public sector cannot pos-sibly do the job alone. The private sector must take more responsibility for helping Americans across the great divide from the old econ-omy to the new. Business will need incentives to do things which do not necessarily improve shareholder returns but benefit society as a whole.

One possibility (this is far from a formal legislative proposal) would be to reduce or eliminate corporate income taxes for companies that achieve certain minimum requirements - for example upgrading the general skills of employees, sharing more of the profits with them and, when laying them off, retraining and placing them in new jobs.

This is a modest measure. Charitable enterprises are already spared paying income taxes; partnerships and proprietorships also receive favourable tax treatment. These differences reflect judgments about the social benefits and responsibilities stemming from these different forms of organisation.

ut the same logic can be applied to business: there are social advantages in improving the quality and flexibility of the workforce, and societal costs in failing to do so. Certain enterprises may be well-positioned to maximise these advantages and minimise these costs - better positioned than others, and surely better positioned than government. Society should encourage them to do so, and reward them accordingly.

Those who worship at the altar of the free market need not fear blasphemy. Corporations would not be required to keep on workers who do not contribute to the bottom line. nor to remain in communities if there are more efficient places to produce. It would be a simple quid pro quo: lower - or no - corporate income tax for accepting more responsibility for the social costs

and benefits of economic change.

Where to make up the lost revenues? One possible source would be ending the myriad special subsidies and tax breaks targeted to particular companies, which provide no appreciable public benefits. Such corporate welfare totals over \$100bn a year in the US, according to the estimates of think-tanks across the political spectrum.

Others will have different ideas for how corporations can best respond to the growing inequalities and insecurities experienced by working people trapped in the old economy. But discussion about the proper role of the corporation at this unique moment in history is no less important than the current discussion on the role of government.

When so many are foundering in the face of record profits and a soaring stock market, the failure of the private sector to respond imperils continued prosperity and stability. if too many people feel excluded from the gains of a growing economy and disproportionately burdened by its risks and costs, they will eventually support policies that sacrifice growth in favour of economic security - such as trade protection, capital controls and inflexible employment rules.

The author is US secretary for labor in the Clinton administration

## Company deaths

If someone dies and a company is to blame, there is probably little that relatives or friends can do about it. Almost all attempts to hold companies responsible under present law fail. According to a sensible set of proposals from the Liaw Commission, published yesterday, that could change.

The commission, the government's law reform organisation, recommends creating a newoffence of "corporate killing", applicable where gross carelessness by a company results in deaths. The commission wants companies convicted of the charge to be liable to an unlimited fine, and also to be ordered to remedy the cause of death. In some cases, it is suggested, fines could run into millions of pounds.

The change would not represent any weakening of present law, as it would still be possible to pursue individual directors under existing manslaughter law where that

appeared applicable. The proposals, which are likely to have considerable popular support, recognise the steady level of public concern and frustration over the present difficulty of holding companies responsible. In many disasters in the past decade. companies have been deemed to be seriously at fault, but prosecu-tions failed. Such cases included the 1987 Herald of Free Enterprise capsize when 187 people died; the 1988 Piper Alpha oil platform explosion, when 167 died; and the 1988 Clapham rail

crash, in which 35 people died A record of failed prosecutions is not in itself a reason for changing law. However, the proposals rightly recognise the shortcom ings of existing law on corporate manslaughter, which requires prosecutions to identify a single person as the company's "controlling mind". There are many cases where sole responsibility is not discernible, but where many would still feel that the company

The recommendations are welcome partly because they reflect those realities of corporate organisation, particularly in large companies. They are also valuable because, if implemented, they might well have more influence on directors' actions than does present legislation. Executives would think carefully about behaviour which could easily incur an unlim-

seek to avoid.

Ministers must now decide whether to put forward legislation on the commission's recommendations. They should do so.

## OBSERVER

#### David takes on Goliath

An unseemly spat has broken out between Morgan Stanley, the bine-chip US investment bank, and David Roche, who used to be its hotshot European research chief. Roche, who now runs his own research outfit, Independent Strategy, is upset because his old employer has had the tenerity to estion his views on China's friture:

. The dispute has its roots in an article Roche wrote for the Wall Street Journal early last month. Roche takes a more bearish view of China's long-term prospects than Morgan Stanley. Nothing too astomshing in that, as his old employer has high hopes for China; it helped set up China's first international investment bank and is keen to win lots of business.

Roche's real gripe is that Morgan Stanley Asia responded to his article by sending a fax to clients saying that Roche's argument is "really quite misleading" because it exaggerates the level of inefficiency in state owned enterprises. Roche has responded with a letter to his clients, saying that the Morgan Stanley fax is wait for it - "highly misleading". "It seems to us unusual (if not unprecedented) for a major global investment bank to start a debate

in such a personalised way."

thunders Roche, "We have known

(at first hand!) the pressures ofproducing objective research within an integrated investment house," he notes sanctimoniously. For those missing the point, Independent Strategy stresses that it's "neither restricted by any vested interests nor influenced by the pressures of national governments". One can almost near the roar from the world's financial markets - thank heavens for David Roche....

His master's voice Open him up, and the UK prime minister John Major will probably

have Seoul engraved upon his heart. In Seoul on the last day of its Far East tour, Major's entourage was heartened to read an editorial in one of the local English language dailies, the Korea Heraid.

The Korean scribe began calmly enough, describing Major's jaunt es a "fitting and propitious : occasion to further the cordial and productive relations" between the UK and South Korea, A few lines on, and frenzy erupted: "The fortitude and dynamism of the Conservative host of No 10 Downing Street has been wellborne out by the record of his many years at the helm of the United Kingdom.".

"More more," the British delegation was heard to cry over breakfast. They got it. The back continued: "He led the country

effectively in the face of diverse challenges from his critics at home and opponents abroad. The current political and economic stability of the proud nation goes to the credit of his strong leadership." This was their finest hour.

Thirty-somethings ■ All change at the Group of Thirty, Paul Volcker's favourite think tank: John Walsh has replaced Charles Taylor in the executive director's seat.

The Washington DC-based Group of Thirty is the slimmest of organisations, but punches well above its weight. Under a heavyweight board headed by the former Federal Reserve chairman, it has pitched in on some of the most ponderous issues facing international bankers and finance officials.

The Group's collection of essays on the World Bank and International Monetary Fund became the essential handbook for officials considering the future of the twin Bretton Woods institutions on their 50th anniversary; its study of derivatives law and practice established a virtual industry standard for managing derivatives

·Taylor is now going to put that work to good use for consultant Arthur Andersen, Walsh, Taylor's deputy at the group, joined it from Capitol Hill, where he handled

international banking issues at the Senate banking committee for Republican Jake Garn. He takes control at a delicate time; The Group is working on ways of handling international bankruptcies, such as last year's Barings collapse.

#### Magnetic Pole

■ The temptations of fuse-mending and electrical rewiring have oddly proved less than overwhelming for Lech Walesa, Poland's former president. Instead of returning to his former employ as a shipyard electrician in Gdansk - as he announced he would in January – Walesa is following the well-beaten path created by many former. international statesmen and women, by setting off on the global lecture trail.

First stop is Scandinavia, where he will lecture a gathering of stock exchange types. Then in April he's off to the US. His lecture title is: "Changes in Europe, the past, the present, the future - through Lech Walesa's eyes". Proceeds will go to the Lech Walesa Institute, set up after last November's presidential elections. The cash-strapped institute aims at uniting Poland's disparate opposition to the ruling coalition of former communists

and peasant farmers. And the shipyard plans? Short-circuited, for the time being, at least.

## Financial Times

#### 100 years ago The Italian crisis

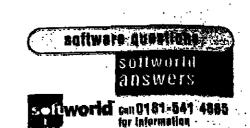
Rome: The Chamber was full to overflowing this afternoon, more than 400 deputies being present: Signor Crispi, who was surrounded by all the members of the Government, immediately rose and announced that the Cabinet had given in their resignations to the King, who had accepted them. At these words the whole House sprang to its feet and cheered loudly for fully five minutes. When at last something like silence was obtained, Signore Crispi continued: "But His Majesty has requested us to continue in office for the despatch of current affairs." Loud groams ensued. and when the uproar had somewhat lessened, Signor Crispi, waving his arms towards the Extreme Left, shouted, "Yes, and keep order, too." With a wild veil the members referred to sprang to their feet and hissed and booted vigorously.

#### 50 years ago

New York listings I imagine that not many British public companies will be auxious to have their shares listed on the New York market is the same experience awaits them as befell Roan Antelope Copper Mines. The company was required to supply about 20 closely filled pages of information which took two months to compile in New York - Lex

## FINANCIAL TIMES

Wednesday March 6 1996



Decision to upgrade Tornados aids Eurofighter

## UK scraps plan to lease F-16 fighters from US

By Bernard Gray in London

The UK Ministry of Defence has bandoned the idea of leasing US F-16 fighters and will upgrade its existing Tornado fighters to fill a gap until the Eurofighter comes into service.

Its decision consolidates the position of Eurofighter, the nextgeneration jet being developed by Britain, Italy, Germany and Spain, by removing the threat that the UK could move to a US fighter fleet.

However, it is a blow to Mr David Hart, an adviser to Mr Michael Portillo, the UK defence secretary. Mr Portillo has been strongly challenged in the House of Commons about Mr Hart's role at the MoD in general and on his advice on the F-16 in particular. An MoD competition between upgrading 100 Tornados and leasing 30 F-16s concluded that sticking with the existing fighter

would be far cheaper. Much of the extra cost of F-16s would have come from the additional support equipment which would have been required. As

Fifa tackled

over royalties

on footballs

Continued from Page 1

the European Union.

Switzerland is not a member of

Fifa said yesterday it could not

comment because it had not been

informed officially of the Com-

mission's investigation. How-

ever, it pointed out that only balls used in international

matches had to carry the new

Pifa logo. It also said money

from the scheme was be used to fund its youth football initiative. Brussels says the cost of the

royalty system, which was intro-duced at the beginning of this

year, adds around SFr8 to the

cost of producing and retailing

each bail once the necessary

tests required for use of the Fifa

ever, are against the scheme.

Adidas welcomed the licensing

programme and said the price of its footballs had not risen since

The Commission's investiga-

tion could result in hefty fines if

it finds that Fifa has abused its

position as an exclusive certifler

of high quality footballs.

logo have been completed. Not all manufacturers, bow-

its introduction.

F-16 would have needed different air-to-air refuelling tankers, training equipment and maintainance facilities. During the competition the proposed upgrades to the Tornado were also slimmed down to the minimum to cut costs.

Now British Aerospace will be given a £125m (\$192.5m) contract to fit improved electronics to the F3 Tornado fighters which will allow then to carry the latest short and medium range mis-siles. However, the MoD will not buy additional missiles, and the Royal Air Force will have to use existing air force and Royal Navy

BAe is already developing large numbers of the new Asraam short-range missile for the RAF. which will be available by the time the first Tornados are upgraded in 1998. However, the Navy, which is the only current user of the Hughes Amraam medium-range missile, only car-ries a stock of 100 for its F/A-2

Since the UK would only have 100 missiles to arm up to 100 Tor-

would be reliant on the US being prepared to supply more Amraan missiles in any conflict, which could be fitted to the Tornados

very quickly.

The need for action came because the fighter version of the Tornado was increasingly falling behind modern aircraft being used elsewhere, and the introduc-tion of the Eurofighter had been delayed several times. The RAF had become uncompetitive, and the UK was embarrassed at its reliance on US air defence cover in the Gulf War and Bosnia.

The Tornado P3, which is fast and has a long range, will now gain the agility it lacks through fitting the highly manoeuvrable

The RAF had strongly backed upgrading the Tornado as a lowcost way to fill the gap, partly because it was concerned about the threat posed to the Eurofighter programme by a "Trojan Horse" of US fighters being used by the UK. "Once you put in the of US jets, it is the easiest thing in the world to buy more," said

## EU states ordered to pay for breaches of European law

and Deborah Hargreaves

European Union states must compensate individuals and com-panies for losses resulting from government failure to implement EU laws correctly, the European Court of Justice ruled yesterday.

The ruling means the UK government must pay damages to Spanish fishermen banned from British waters in 1989 and Germany must compensate a French brewery prevented from exporting beer to Germany. Ninety-seven Spanish and

Dutch fishermen are suing the UK government for up to £30m (\$46.2m) after it legislated in 1988 to close a loophole which allowed foreign trawler owners to circumvent EU fishing quotas by registering their boats under the British flag. In 1991 the act was withdrawn after the Luxembourg court ruled it incompatible with European discrimination laws.

In the German beer case Brasserie du Pecheur, a French brewery, is suing the German government for DM1.8m (\$1.22m) after it was forced to stop exporting to Germany between 1981 and 1987 because its beer did not comply with German purity laws. In 1987 the European Court ruled the German law was contrary to

European law. Yesterday's judgments follow

the Luxembourg court - in the Francovich case in Italy - in which it ruled that EU states could be forced to compensate of RU law.

The court said states would only have to pay damages if three conditions were met: the EU law breached must confer rights on individuals; the breach must be sufficiently serious; and the damage must have been directly caused by the breach.

An infringement is considered serious if it is "manifest and grave". National courts must decide what is manifest and grave, looking at such factors as whether the EU rule was clear and precise and the measure of discretion left to the state in implementing it.

to decide on the level of damages, although the European Court said they must amount to full compensation for the injury suffered and must be no less than the compensation for similar claims under domestic law The court rejected the UK gov-

National courts will also have

ernment's argument that damages should be payable only when the breach of EU law was intentional or the state had been

FT WEATHER GUIDE

Argentina senses tougher UK stance, Page 5

### Japan tries to break budget impasse with talks

By Gerard Baker in Tokyo

The Japanese government last night attempted to break the impasse over next year's budget by offering further talks with the controversial plan to spend public money on bailing out bank-rupt housing loan companies.

Representatives of the ruling coalition and the opposition New Frontier party agreed to attempt the scheme, which requires the budget to include Y685bn (\$6,4bn) of public funds towards liquidation of the companies, known as

The offer of talks followed another day of inconclusive drama in parliament as opposi-tion members continued physically to block entry to the committee chamber where the budget vote was due to have been held on Monday.

The opposition wants the government to cancel the planned public contribution to the scheme and force banks to pay more towards the liquidation of the *jusen*, which have buckled under the weight of their non-perform-

The NFP earlier rejected a pro-posal by the government to increase the apparent burden of the banks in the ballout plan. The coalition said increased restructuring efforts by the nation's big banks would enable them to provide a further Y500bn towards the liquidation over the next seven years.

The extra profits generated by the restructuring would produce higher tax returns, which would partly offset the government's contribution to the scheme, Mr Kazo Watanabe, deputy chief cabinet secretary, claimed.
Under the original scheme, the

banks that founded the jusen are required to pay Y3,500bn towards their liquidation, along with Y1,700bn from other banks and Y530bn from the other large group of creditors, the nation's agricultural co-operatives. But the new proposal con-

tained no firm commitment to require the banks to improve profitability. Opposition politi-cians said it was an attempt to "deceive" the public.
The government wants the

spending plans approved by the end of this week, well in advance of the new fiscal year which begins on April 1. But without co-operation from the opposition that prospect is fast receding.

The two sides will discuss details of the government's latest proposals, which also include commitment to establish a parlia mentary investigation into the causes of the debacle, and a moratorium on finance ministry officials taking up posts in the pri-

Mad Hatter enters housing loan fray, Page 6; Editorial Comment, Page 11

### THE LEX COLUMN

## Israeli investments

political turmoil, Israel has attractions. The economy grew by nearly 7 per cent in 1995. This year it is expec-ted to expand by 6 per cent, fuelled by a wave of immigrants and the gradual erosion of the Arab boycott. Inflation is down to single digits and the gov-ernment's budget deficit for 1996 is estimated at 2.5 per cent of gross domestic product – better than many European countries, Israel is running a big current account deficit, but that is only to be expected as economic growth has been sucking in imports.

Strong fundamentals made Israel one of the best performing emerging markets last year, with a rise of 17 per cent in dollar terms. But with forecast average earnings growth of 16 per cent this year, the stock market is still trading on just 11 times prospective earnings. A weaker shekel should help exports, which make up 80 per cent of profits; and the index is perpered with high-technology electronics and pharmaceutical companies.

In the short term, the market may suffer from the after-shock of the recent bombings. But longer term, the harder line being adopted by Mr Shimon Peres, the prime minister, could help his Labour party win the May election. That would be regarded as positive by international investors, who now account for around 10 per cent of the market's total capitalisation, compared with 1 per cent two years ago. Even allowing for the politi-cal risks, the market looks attractive.

CS Holding

CS Holding's 5 per cent profits increase last year is hardly impressive, given that 1994 earnings at the Swiss financial services group were depressed by grim market conditions. At least revenues in all main business areas showed some improvement, which is more than Union Bank of Switzerland managed. But there was a nasty 11 per cent increase in provisions, which appears to reflect more nasty property loans at Swiss Volks-bank - an acquisition which has arguably been of greater benefit to competitors, by rationalising the banking market, than to Credit Suisse itself.

Also disappointing is the 6 per cent rise in commission income - more could have been expected given the strong financial markets last year. Even the 31 per cent increase in trad-ing profits is not impressive, 1994 was an unusually had year for traders, 1995

FT-SE Eurotrack 200: Indices retigeed

caused them to reduce risk-taking, The result is that, while the quality of earnings may well have improved, the bounce-back in trading profits is relaively modest. Swiss Bank Corporation, probably the most aggressive of the big three Swiss banks in this context, may prove to have fared better

when it reports next week.
While the prospects for the Swiss
banking sector may have been improved by rationalisation, alow eco-nomic growth continues to cap profits growth. At around 16 times 1995 earn-ings and with return on equity of around 9 per cent, CS still looks

UK cable TV

Nynex Cable Communications' share price has risen 20 per cent in the past week, in response to rumours about merger talks with TeleWest. about margar talks with relewest-Similarly, Videotron, a UK cable tele-vision group quoted in the US, has seen a 25 per cent jump in its stock since it was in effect put up for sale last month. In both cases, the pre-sumption is that somebody will plank down a huge not of cash down a huge put of cash. Investors should not count on it.

The most logical buyers for Nynex and Videotron would be other UK cable groups, as consolidation would out costs and poost their purchasing power. But because few have cash, any deal is most likely to be an all-stock merger. And if the precedent of last marks merger between Tablester last year's merger between TeleWest and SBC Communications is anything to go by, a premium would not be paid. While some rise in Nynex and Videotron's share price would be

appropriate under such a scenarie to reflect the benefits of consolidation, there should be a similar rise in the purchaser's stock. It would also not be

in talks with

Milal buyers

anything like 20-25 per cent.
One cannot rule out the possibility that a hig foreign telecome group will pay cash - aiming to use cable as a platform to compete against hi in platform to compete against. HT in telecoms. But of the names handled about, only KFN of the Netherlands has so far shown interest in UK cable. The others - AT&T and Deutsche Telekom - seem unlikely to be attracted by an industry that is still fragmented and so unsuited for requiring a national telecome seems. mounting a national telecome service. Of course, if consolidation does procood apage that may change.

CRH, the Irish building materials group, is the white sheep of the sector, Against the trend, it managed to noteh up an impressive 32 per cent rise in 1985 profits. Its long term performance outly impressive with company is equally impressive, with compoun

for the last 25 rears. The question is whether this means its fortunes are due for a reversal. The its tortunes are due for a reversal. The company warned yesterday it was unlikely to repeat last year's profits growth. Extremely favourable conditions in Ireland cannot continue indefinitely, and the US market has prosently peaked; these were the largest contributors to profits last year.

But there is call please largest last year.

But there is still pienty left to go ing. Ireland and the US may no longer drive growth, but there is room for an upturn in other markets, such as the UK. Furthermore, the company's farmula for success is to boost earnings through a steady stream of smallighacquisitions, financed out of its strong cash flow Quite simply, it has consistently chosen and managed these acquisitions better than competitors, and that strategy shows no sign of and that strategy shows no sign of

The stock's rating, more or less t line with both the sector and the UK stock market, also suggests it is undervalued given its record. This is partly because, although it has a Lon-don listing, the fact that it is domi-oiled in Ireland means it is not consid-ered a "must" for UK fund managers. Given the international profile of the husiness and the limited exchange rate risk, any discount is likely to be further eroded.

**祖教教育 835三年**年 1

## **Masters in Finance**

London Business School's specialist Masters Programme in Finance is designed for those already pursuing, or planning to pursue, careers in business or the financial services industry which require an in-depth knowledge of finance.

The Masters in Finance is practical and career oriented while maintaining high standards of rigour and scholarship. It provides participants with a thorough grounding in finance and enhances their managerial effectiveness within this field.

The programme is taught by the School's internationally renowned finance faculty. It can be completed in nine months of full-time study, or on a part-time basis over two years of mainly evening attendance. To find out more come to one of our information sessions;

London

London - Thursday 7 March at 6,15pm London Business School, Sussex Place NW1 London - Tuesday 2 April at 6.15pm London Business School, Sussex Place NW1 London - Wednesday 1 May at 6.15pm London Business School, Sussex Place NW1

Tokyo - Thursday 7 March at 7,00pm Hotel Okura, 2-10-4 Toranomon, Minani-ku Hong Kong - Monday 11 March: presentation at 6.15pm or drop in between 12 noon - 4.00pm Mandarin Oriental Hotel, 5 Connaught Road Taipei - Tuesday 12 March at 7,00pm Sherwood Hotel, 111 Minsheng E. Road

Asia (continued)

Knala Lumpur - Wednesday 13 March at 6.15pm Hotel Istana, 73 Jalan Raya Chulan Singapore - Thursday 14 March: presentation at 6,15pm or drop-in between 12 noon - 4,00pm Westin Stamford Hotel, 2 Stamford Road

Rest of the World

Frankfurt - Wednesday 27 March at 6,15pm Steigenberger Frankfurter Hof, Am Kaiserplatz Los Angeles - Monday 1 April The Biltmore, 506 S Grand Ave at 12,30pm Century Plaza Hotel, 2025 Ave of the Stars at 6.15pm Toronto - Monday 15 April at 6.15pm The Four Seasons Hotel, 21 Avenue Road

Information about the MBA and Sloan Masters Programme will also be available For a brochure, fax or mail the coupon, attach a business card, or write to: The Information Officer, Finance Programmes Office, London Business School, Sussex Place, Regent's Park, London NW1 4SA, UK. e-mail: mifinfo@lbs.lon-ac.uk Tel: +44 (0)171 706 6840 or 262 5050 Fax: 723 1788 or 724 7875 URL: http://www.lbs.lon.ac.uk

FT 6/3/96	१२ च्या व्यवस्था स्थापन	School
London Business School exis	to advance learning and research in business and management	Business
Tel;	Favor	London
City:	Postcode:	
Address:		
Company;		
Job Title:	· · · · · · · · · · · · · · · · · · ·	

#### **Europe today** Moist air will be drawn over the North Sea into

the Benefux and Germany along the eastern flank of a high pressure area over the British Isles. As a result, cloud will be persistent with patchy drizzle and overnight fog. Northern Franco will be cloudy but cloud will be scattered further south. After early morning fog, most of the UK will be fair and calm. Western parts of the UK will have sunny intervals, but eastern England will be cloudy with patchy drizzle. The southernmost Iberian peninsula will have plenty of rain but elsewhere it will be dry with frequent sunny intervals. Abundant sun is expected over Italy. Greece will turn dry but rain and high-elevation show will occur in Turkey.

#### Five-day forecast High pressure will shift towards western Russia

from temorrow. Calm conditions over central Europe will change to a drier south-easterly flow. As a result, it will become fair with bright intervals. Temperatures will rise to seasonal levels over western Europe as milder air is transported north. The Baltic states, Poland and Belarus will continue to have light daytime frost. The eastern Mediterranean will become more settled but central regions will continue to have

sun cloudy drzel cloudy thund sun cloudy cloudy cloudy cloudy sun

Our service starts long before take-off.

Lufthansa

Mackid Majorca Maka Manchest Manla Melbourne Meuro Gi Marre Misson Montreal Afoscow Muritch Narrobi Narsasau New York Nico Nicosiq Csio Parts 15 9 6 3 22 26 3 3 7 3 24 20 21 27 16 8 6



**FINANCIAL TIMES** 

## **COMPANIES & MARKETS**

Wednesday March 6 1996 **OTHE FINANCIAL TIMES LIMITED 1996** 



0171-606-1000

#### IN BRIEF

\* 1984 - 1 a

PARTIN ST. ...

精神をは

POLITICA II AND

**新建设** 

III D

All the same of th

MA UKSTAN

**建** 

THE STREET OF STREET OF STREET

THE REAL PROPERTY.

THE REPORT OF THE PARTY OF THE

\* to imment a man a man

A CONTRACTOR OF THE PARTY OF TH

Market Commence of the

A Carrier

羅 郑 中 5 上三,

職を認いる中で

Part of the same o

THE SELECTION OF THE RE

1 100 - 100 - 12

A CONTRACTOR OF THE SECOND

ARTHUR DE LE LE LE

that with the service of

WHAT THE LOT IS

· 数 行至工等。 水 2011 - 1 1 2 2 2

養養物 たいきしかぬ

羅 境終 かいてい こうごう

Bert the last and and

**[1484]** (2019) (2010) (2011) (2011)

STREET HAVE STREET STREET

MERCHAN CO. CO. AND

Note that the second second

The state of the state of the

Marie Supplied to the State of the State of

**(80) 186**0 (1860) 1870 (1870) 1870

**新** 裁判的 114 (E.

March Property on

and the second of the second

Sec. William III

Mark at p. 15cm

Awalla

SANTAL ROLL

in periods.

Water water out

Toronto NET LALLY

# 【题注》

5.2

ACCES TO

និ**ទី**ត្រង់ ស្ពិសាស

A CONTRACTOR

**\*\* \*\*** 

THE RESERVE

#### Lotus in talks with potential buyers

Lotus, the UK engineering company best known for its sports cars, confirmed it was talking to potential buyers, but denied it had been sold to Daewoo, the acquisitive Korean industrial group. Page 14 North American pulp mills slash kraft price

North American wood pulp mills have again slashed prices amid recriminations among producers over the pulp market's recent decline. Weyerhaeuser, one of the biggest producers, set the ball rolling last week by cutting the list price of Northern Bleached Softwood Kraft (NBSK), the industry's benchmark product, by 17 per cent to \$600 a tonne. The latest reduction comes just a month after a similar

cut. Page 19

**Belgian bank to stand alone** Générale de Banque, Belgium's largest bank, said its philosophy remained to be a "stand-alone" organisation, despite recent calls from ministers for large Belgian banks to merge and form a "megabank", and speculation that it was considering a merger with Banque Bruxelles Lambert, the fourth biggest bank. Page 14

Hacco downbeat for 1998 after 20% slide Hong Kong Aircraft Engineering Company (Haeco), a listed subsidiary of the Swire group, announced a 20 per cent fall in net profits to HK\$331.3m (US\$42.9m) for 1995 and warned of further difficulties and a fall in margins this year. Page 16

WR Grace snubs Hercules merger offer Shares in WR Grace, the embattled US chemicals company, jumped 11 per cent on news that it had rejected a marger approach from Hercules, a fellow US speciality chemicals producer. Page 17

High stakes in WordPerfect partnership Corel, which bought WordPerfect, the word processing software maker, in January from Novell, the networking software specialist, is eager to show that the deal has the makings of an exciting and rewarding partnership. The Canadian software maker's efforts underscore the high stakes riding on its new acquisition, both for WordPerfect and

Emap nears deal to buy French magazines Emap, the UK publishing and media group, is close to purchasing three leading French consumer magazines from Compagnie Luxembourgeoise de Telediffusion for £146m (\$223m). Page 18

M&S to sell Canadian stores chain Marks and Spencer, the UK retailer, is to sell its chain of 85 D'Allaird's stores in Canada to Comark, one of the country's largest speciality retailers.

Kmart Kone

Tratalger House

Western Hall Wilson and Horton

VNU .

WR Grace

Lotus Sertelemann Bombardier Bridgestone British Aerospace Mercedes Benz 14 Metro 12 Noel Group Novel Pacific Duniop Cecchi Gori 17: Peugeot 13: Porsche 17: Portucal-Industrial Coles Myer RJR Nabisco Renault Rybynek Motors Sotheby's Deutsche Teleko Southcorp TelecomAsia Telekom Malay The T&T

Goodyear

Bank of America

Market Statistics

enchmerk Govt bonds Bond futures and options Bond prices and yields Commodities prices dividends announced, Ui EMS currency rates Fixed interest indices FT/S&P-A World Indices

FT-SE Actuaries Indices Foreign exchange Gilta prices Managed funds service Money markets New init band becase New York share service Recent Issues, UK 36 : Short-term int retes FT/ISMA Intl bond 840

Chief price changes yesterday SAD SA. UMP TOKYO (Yen)
Trises
Osny's Japan 3480
Nachi Rullashi 489
Nicpon Shirpan 762
Spicnogi 880 Sygne HK Prop 1:
#ANGACOK (Ellaht)
#glees
Thei Periosping 19.7
Thei Union Pr 33.4
Februaria
Ind B'cast 45.1
Segment locs 95
Perios Immetry 45.1 Rissee Bolden Blar Buyener Rec B Pealls Aff Adv Into Clearnet Comes Stater Inde Scotlary Silver PARISEE (IMPr)

## RJR lifts dividend to woo investors

By Richard Tomkins in New York

RJR Nabisco, the US tobacco and food group fighting efforts to force it into a break-up, yesterday tried to win back shareholders' allegiance by announcing a 23 per cent increase in its dividend and a

\$100m share repurchase programme.

The strategy carries risks because it will soak up RJR Nabisco's scarce cash resources, but the big US credit rating agencies yesterday backed off from threats to downgrade the company's debt to junk bond status, saying any action hinged on the outcome of a shareholder dispute.

Two weeks ago Mr Bennett LeBow and Mr Carl Icahn, the US corporate raiders pressing RJR Nabisco to spin off its food business, claimed victory in the first round of their battle by announcing that a

disappoints

income rise

CS Holding, the financial services

group built around Credit Suisse,

yesterday posted a 5 per cent rise

in 1994 net income to SFr1.4bn

This was below many inves-

tors' expectations but slightly

better than the 3.8 per cent rise

reported by rival Union Bank of

Switzerland two weeks ago. Earn-

ings per share were down 2.6 per

cent, to SFr7.59, because of an 8.2

per cent rise in the average num-

The shares fell SFr2.5 to

SFr112.5 on the Swiss stock mar-

ket, Analysts said it was difficult

to discern underlying business

trends because of a number of

in 1994, the group's net income

was lifted by the sale of a 20 per

cent stake in its derivatives sub-

sidiary for SFr540m. The 1995

operating income was helped by

changes in accounting practices

and the release of SFr575m in

retained earnings to cover bad

loans at Swiss Volksbank, a sub-

Mr Hans Kaufmann, banking

analyst at Bank Julius Baer in Zurich, complained of "account-

ing glmmicks" and wondered

whether the group should be assigned a higher risk premium

Group net interest income rose

6 per cent, to SFr3.26bn, but pro-visions rose 11 per cent, to

SFr2.6bn. This reflected the "per-sistently difficult situation" in

the Swiss property market, the

slow growth of the Swiss econ-

omy and the need for further aid

ber of shares outstanding.

exceptional items.

sidiary.

with 5%

By lan Rodger in Zurich

Tobacco and food group to fight raiders' break-up proposals with \$100m buy-back

RJR Nabisco is checking the figures, but it has vowed not to press ahead with a spin-off even if the vote is confirmed. It says an immediate spin-off would be blocked by anti-tobacco plaintiffs with liti-

gation pending against the company.
Yesterday, RJR Nabisco tried to appease shareholders by promising that the Nab-isco food business would be spun off "at the earliest possible time". In the meantime, it said, the board had decided to return a greater share of the company's free cash flows to shareholders by lifting

Zurich

14.74

3.13%

SF<sub>1</sub>7.99

SFr1125

CS Holding beats rival but fails to impress investors

Swiss bank COMPANY PROFILE: CS Holding

Main listing

Historic P/E

Gross vield

Share orice

Earnings per share

Current share price

relative to the SMI Index

shareholder vote had produced a narrow the quarterly dividend from \$0.375 a share majority in favour of their proposal.

The company also committed itself to buying back about 10m of its common shares over the next few years, starting with \$100m worth of stock this year. It currently has 272m shares outstanding, or 330m fully diluted.

The company also announced the formation of a new board committee consisting entirely of outside directors to oversee corporate governance and to take responsibility for nominating new directors.

The dividend and share buy-back moves recall measures taken by Philip Morris.

the biggest US tobacco and food group, when it backed away from a break-up in 1994. Philip Morris increased its dividend by 19.6 per cent and started a \$6bn share

Unlike Philip Morris, however, RJR Nab-isco is weighed down with about \$10hn of debt - a hangover from Kohlberg Kravis Roberts's \$25bn leveraged buy-out in

Last week Standard & Poor's, the US credit rating agency, warned that further pressures on the company's "limited financial flexibility" would risk a lowering of its debt rating,

Mr Steven Goldstone, RJR Nabisco's chief executive, said yesterday that the company's "improving outlook" made him confident that the policies were sustain-

## Coles Myer rejects proposal to break up

هكذامن الأحمل

By Nikki Tait in Sydney

Coles Myer, Australia's biggest retailer, said yesterday it had decided against pursuing any further the idea of breaking up into separately-listed operating units.

Instead, it would concentrate on "the current strategy of coordinating and integrating Coles Myer's core retail brands". Mr Nobby Clark, Coles's new chairman, described the approach as "low-risk" and "well-defined" with "significant potential of increasing shareholder value".

The board, he said, was "satisfied that management projections of the bottom-line benefits are realistic and sustainable". The plan to break up the group

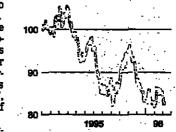
was mooted by Mr Solomon Lew,

Coles's former chairman, when he was fighting institutional shareholders over the group's corporate governance standards. The battle - which along with concerns over profits growth has helped to depress the share price - ended late last year. New nonexecutive directors appointed to the board, and Mr Clark, a former National Australia Bank chief, was installed as non-executive chairman. Mr Lew, who is Coles's biggest single shareholder, remained on the

board Institutional investors tended to dismiss Mr Lew's break-up suggestion as a diversionary tactic, although they said they were happy to have the idea investi-gated.

The break-up plan had been examined by three advisers -Smith Barney, Macquarie Bank, and KPMG Corporate Finance. Mr Peter Bartels, Coles's chief Coles Myer

Share price relative to the All Ordinaries Index



executive, declined to detail their findings, or to say whether the three firms had come up with similar conclusions.

However, he said the board's decision was in favour of the option which would maximise shareholder value.

Coles stressed that it would continue to divest non-core assets. It said it was retaining KPMG and Macquarie Bank to advise on its remaining property portfolio. More than A\$650mworth (US\$500m) of property assets have been sold in the past 16 months.

The existing restructuring proramme has involved refocusing the company's brands and a betintegration of services to eliminate duplication and cut

Coles has outsourced a number of group functions - such as vehicle leasing. Mr Bartels suggested the group might have more to say on further costsavings when it announces interim profits this month.

### **Kmart set** to raise \$118m in Czech sale

By Vincent Boland in Prague, hard Tomkins in New York and Roderick Oram in London

Kmart, the troubled US discount store group, looks set to raise a badly-needed \$117.5m by selling its 13 stores in the Czech and Slovak republics to Tesco, one of the biggest UK retailers.

The proposed sale, expected to be completed in April, marks the end of Kmart's only venture into Europe. It bought the stores from the then Czechoslovakian government in 1992, spending an estimated \$120m on acquiring and renovating the chain.

Kmart, which operates more than 2,000 discount superstores in the US, is the world's second biggest retailer, but it has been suffering acute financial difficulties because of its failure to compete with Wal-Mart and other, more successful, US discount store groups in its home market. After 11 quarters of poor earn-

ings, its stock has plummeted, its debt has been downgraded to junk bond status and it has been struggling to stay out of chapter 11 bankruptcy protection by selling non-core assets and renego-tiating its loans.

Mr Floyd Hall, who took over as chairman and chief executive last year, said the Czech and Slovak stores had enjoyed solid sales increases and were expected to show a profit for the year to January 1996. "However, the sale of these businesses is in keeping with our determination to focus our energies and resources on our core operations in the US and North America."

"Longer term, we expect that there will be greater interna-tional growth opportunities for Kmart in Mexico, Central and South America," he said. Kmart's international operations include stores in Canada, Guam, Puerto Rico and the US Virgin Islands, plus joint ventures in Mexico and Sines

For Tesco, the purchase "com pletes the geographic jigsaw for us in central Europe", said Mr David Wild, the UK group's European corporate development director. In November 1994, it paid £8m (\$12m) for a Polish store chain and a year later it bought a group in Hungary for

The latest acquisition, among the biggest UK direct invest-ments to date in the two countries, will give Tesco six department stores in the Czech Republic and seven in Slovakia. The purchase is expected to be finalised next month.

#### **Barry Riley**

to Volksbank. Commission

income was also up 6 per cent, to

SFr4.13bn, although the result

was flattered by first-time consol-

idated contributions from the

Credis investment funds subsid-

Trading income jumped 21 per cent, to SFr2.99bn, and other

income remained a still high

Total operating income

SFr11.66bn, while operating

expenses fell 1 per cent to

SFr6.95bn, leaving profit before taxes and provisions up

SFr1.14bn, thanks to the released

retained earnings

iary and Neue Aargauer Bank.

## New World spurns the Old World's last stand



Curiously, the Bank Credit Analyst conference, which closed yesterday in London, marked the influential Montrealbased financial forecasting firm's

first collective visit to Europe. And if the Atlantic is not much of a physical barrier these days, the main impression to emerge from the conference was of an extraordinary gulf of mutual incomprehension between investors in the US and Europe. Europeans are suspicious of

the claimed corporate sector miracle in the US, and remain convinced Wall Street's amazing bull market represents a dangerous trap that must end in disaster. As for North Americans, they

regard Europe as a kind of industrial museum which threatens to become a basket case. They cannot understand why such enormous political and financial resources are being expended upon Economic and Monetary Union, which instead of being a marginal exercise in efficiency and integration threatens to become seriously disruptive.

At the very least, it is distracting attention from the problems of improving competitiveness and cutting unemployment. At worst it may undermine the European Union: a case of fiddling while the Treaty of Rome

I have spelt out the underexposure of European investors to Wall Street several times. UK pension funds, for example, have only 18 per cent of their overseas equity portfolios in the US, whereas Wall Street represents about 48 per cent of the World Ex UK Index. The opportunity cost of this underweighting over the past year has been high Europe's anti-US prejudices

have several origins. The US. with its low savings and perma-nent trade deficit, has been considered financially unsound; its politics, with government shut-downs and weird fringe pundits running for president, appear bizarre; its volatile industries can seem, to stuffy Europeans, to be based on Mcjobs and candylloss.

North Americans regard Europe as an industrial museum

Will Wall Street indeed crash? The BCA editors had some comfort in the short term for the European audience. The US stock market has become highly speculative and is vulnerable to a likely acceleration of economic growth during the next two or three quarters. The long bond yield could rise to 7 per cent and Wall Street is likely to tumble by 10-20 per cent.

However, that would be a buying opportunity, they say. The US economy is on a long-wave expansion. The Wall Street uptrend, which began in 1982, could run another eight or 10 years. Europeans must accept this last chance to get on board. The BCA view on continental Europe, however, was that countries such as France and Germany were lagging many years behind the US, by trying to resist the "creative destruction" required by the long cycle. As for Emu, Mr Bernard Con-

14 per cent at SFr4.71bn.

Swiss franc.

contributions.

Lex, Page 12

Pre-tax profit of the group's

flagship bank, Credit Suisse.

soared 40 per cent, to SFr1.86bn

and Volksbank achieved net

income of SFr163m after restruct-

uring. Net income of Credit Sui-

sse Financial Products, the deriv-

atives subsidiary, fell 11 per cent

to SFr298m because of the strong

CS First Boston, the US invest-

ment bank, lifted net income by a

third to \$207m after restructur

ing. Both the private bank sub-sidiaries and CS Life made higher

nolly, ejected from the Brussels bureaucracy last year for betrayal by writing his book The Rotten Heart of Europe, turned up to continue the attack. He portrayed Emu as the "bureaucrats' last stand", an attempt to recreate the dirigiste golden age of the 1950s and 1960s and exclude the disruptive influence of the Asians and Americans, while politicians were encouraged to dream of the fame they would gain for making possible eternal peace.

None of this was calculated to restore the enthusiasm of American investors, especially as Mr Connolly accepted that, despite the controversy and the missed convergence targets, Emu was more likely to happen than not. Even over-indebted Belgium would be allowed in, perhaps with a six-month delay as a bone for the Bundesbank".

This was all good knockabout stuff. Yet the curious point is that for all the differences between the US and Europe, 10year bond yields are very similar at 6.3 per cent in Germany and 6.0 per cent in the US. Europeans might argue the

margin in favour of the US reflects trade deficit recycling by Asian central banks. Americans might say the D-Mark has lost status because it will be merged into a potentially soft euro. But there is not a great deal in it.
In terms of equities, however the European markets have trailed Wall Street by 18 per cent since the beginning of 1995. The world may be becoming smaller, but the Atlantic is getting wider.

This announcement appears as a matter of record only

£265,000,000

Funding for the Management Buy-In of

## **BRITISH** ALUMINIUM

Originated and led by Mercury Development Capital

co-led and co-underwritten by **CVC Capital Partners** Morgan Grenfell Development Capital

> Debt finance led and arranged by Bank of Scotland

Underwritten by Bank of Scotland The Royal Bank of Scotland Deutsche Morgan Grenfell

MERCURY ASSET MANAGEMENT

CVC CAPITAL PARTNERS Deutsche Morgan Grenfell

Mercury Development Capital is a division of Mercury Asset Management plc, regulated by IMRO

All parts

#### INTERNATIONAL COMPANIES AND FINANCE

Belgian bank to 'stand alone'

## Eni's estimated results in line with forecasts

By John Simkins in Milan

The dog with six legs - the emblem of Eni, the Italian oil, gas and chemicals group again raced ahead in 1995 and has not disappointed its new

The government floated 15 per cent of the group, which is among the world's eight lead-ing quoted oil companies, last November and shareholders will be offered a reward in the form of a dividend pay-out totalling at least 40 per cent of estimated 1995 net profits of L4,300bn (\$2.77bn).

The estimated consolidated results, released late on Monday, were in line with expectations - net profits were up 33 per cent - and follow a strong performance in 1994.

Restructuring under Mr Franco Bernabė, managing director, has involved concentrating on exploration, production, refining and distribution and the sale of former lossmaking non-core activities.

The bulk of these disposals last year took place in the pet-rochemicals sector, where operating income rose by L1.600bn to L1.950bn. Enichem. the chemicals subsidiary, will return to profit this year after incurring a L857bn net loss in

Mr Alan Marshall, oil analyst at Robert Fleming Securities, the UK stockbroker, said he expected Eni's share price which closed last night L57 higher at L6,007, after touching a high of L6,050 - to outperform the Italian market this

year. Eni's issue price last year, fixed at the bottom end of the range during difficult market conditions, was L5.250. Mr Marshall said be had a 12

months target for the share price of L6.700. He said: "At under 12 times earnings per share in 1995 and under four times cash flow per share, it looks quite cheap both against the market as a whole and the oil and gas sector.

"The company is still running quite a lot of debt, and oil and gas companies are not usually highly geared."

Net debt was reduced by L6.000bn to L17.800bn, bringing the net debt to equity ratio, including minority interests, to 0.7 compared with 1.1 in 1994. Exploration and production,

which is conducted by Agip, boosted operating income by 8 per cent to about L4,000bn, partly because of higher oil prices. Natural gas supply, in which the main division is Snam, increased operating L3,250bn. Italy imports twothirds of its natural gas con-sumption to conserve domestic reserves, with Eni buying from Algeria, Russia and the Nether-

Besides completing its disposals, Eni will upgrade its Agip Petroli service station network. A further sale of shares will depend on market conditions and a decision by the government. The Treasury controls a golden share which prevents shareholders from taking more than 3 per cent without its permission.

Générale de Banque, Belgium's largest bank, said yesterday its philosophy remained to be a "stand-alone" organisation, despite recent calls from ministers for large Belgian banks to merge and form a "megabank". and speculation that it was considering a merger with Banque Bruxelles Lambert, the fourth biggest bank. The statement came as the

bank announced an S.1 per cent increase in 1995 net profit to BFr13.7bn (\$451.7m), although provisions. write-downs and depreciation increased 27 per cent to BFr20.2bn, partly due to provisions on loans to Eurotunnel, the Channel tunnel operator. Asked if Générale de Banque

would consider merging with and improve competitiveness. other Belgian groups, Mr Ferd-Mr Davignon told a Beigian inand Chaffart, chief executive, newspaper he did "not exclude said: "It is clear that our basic a merger of Générale de philosophy is a philosophy of stand-alone." However, he Banque with other Belgian added, "other possibilities"

Mr Chaffart said yesterday Génerale de Banque had His comments followed a call already made great strides in in January by Mr. Philippe Maystadt, the Belgian finance its attempts to develop from "a Belgian bank with branches minister, supported by Mr Elio abroad into a European bank Di Rupo, economics minister, with its roots in Belgium". for the creation of a Belgian The proportion of net profit

coming from outside Belgium was expected to increase from 40 per cent in 1995 to about 60 per cent this year. Last year the bank acquired Credit Lyonnais Nederland, the

Dutch subsidiary of the French state-owned bank, for BFr21.5bn, giving it a foothold in the Dutch market. It also

gest, France's eighth-largest asset management company, for FFr660m (\$131.8m).

Mr Chaffart said the bank was still seeking acquisitions, although a rights issue might be required to raise funds.

Générale de Banque's gross income increased 5.6 per cent to BFr113.4bn, with interest income up 1 per cent, and noninterest income up 15.3 per cent, despite the slowdown in economic growth which Mr Chaffart said had produced only a slight increase in loan demand in most European

countries last year. General expenses increased 2.5 per cent to BFr68bn. The bank proposes to increase its net dividend on ordinary shares from BFr360 to BFr385.

## Fielmann disappoints the market

On Monday, Fielmann joined the growing list of busted German growth stocks. Europe's biggest leading optical chain may have revealed a 43 per cent leap in 1995 profits, but it then forecast a mere 5 per cent gain in the current year, blaming increased marketing costs.

The preference shares, which had rocketed by more than 70 per cent during the past 12 months, immediately came back DM13.20, or 15.7 per cent, to DM70.80, and fell another DM1.90 yesterday to DM68.90, a

pointments: Escom, the computer group: Hornbach, the do-it-yourself company;

and Wella, the hair care group, were among the investment selections when growth stocks became fashionable last

would never be ruled out.

banking group that was large

enough to compete in the inter-

Their statements were ech-oed by Mr Etienne Davignon.

chairman of Societé Genérale

de Belgique, which holds 30 per

cent of Générale de Banque,

who said the bank should look

for links that would add value

national market.

Traditionally, investors in the German market have pre-ferred big cyclicals, like the automotive groups and chemicals, or the defensive qualities of its financial and utilities sectors.

Fielmann's attraction was its combination of international purchasing power and vertical integration. The group is a spectacle frame manufacturer, retailer, engineer and ophthalmic optician.

years, and some analysts were going for annual sales growth close to the 20 per cent mark

to the DAX Index

went, 37m people wear spectacles. Fielmann produces the

the market, generating its growth through high volume. The volume was available because almost 70 per cent of Germans in the 45 to 59 age group were wearers; that applied to nearly 100 per cent of senior citizens; and with the age pyramid for Germany becoming increasingly heavy. there were indications that there was further scope for the market to expand.

These opportunities still exist. But, says Mr Stephan Muelheim at brokers Dillon Read, stocks in and around the retailing sector have had to battle with depressed German the Dax index last year with a rise of just 0.1 per cent, follow-

## Veba and Metro in digital TV venture

**EUROPEAN NEWS DIGEST** 

Two of Europe's largest companies, Veba of Germany and the Swiss retail group Metro, yesterday said they would join forces to introduce digital television in Germany, putting paid to painstaking efforts to ensure a common digital television standard in Germany, Europe's largest market.

The Veba/Metro alliance will be pitted against another consortia of German companies, including the state-owned telecoms operator Deutsche Telekom and the media group Bertelsmann, which last year created a rival consortiur Multimedia Betriebsgesellschaft (MMBG), in which Veba was supposed to take a stake.

News of the alliance is a significant success for Mr Leo Kirch, the German media mogul who had been at loggerheads with the MMBG consortium on the question of which decoder should be used to access digital television services such as video on demand and home shopping. Veba and Metro yesterday said they would use a decoder launched by Mr Kirch last year, known as the d-box, and not MMBG's rival technology. All of the German companies involved in digital television appeared to have reached preliminary agreement on a single standard in December.

The rival MMBG consortium also includes ARD and ZDF. the two German public-sector television channels and Canal Plus, the French pay-TV channel partly owned by Bertelsmann. The Veba/Metro alliance said it would start its first field trials in coming months and expected to introduce a full range of digital television services not later than
September 1.
Michael Lindemann, Se

#### Portucel ahead five-fold

A cyclical rise in pulp prices helped Portucel-Industrial, the world's second largest producer of bleached eucalyptus palp, lift net consolidated profit almost fivefold to Esi8.1bm (\$138m) in 1995 from Es3.2bn in 1994. The strong performance was driven by a sharp rise in pulp prices, which peaked in the third quarter of 1995. But analysts forecast a fall in the group's earnings this year due to an earlier-than expected downtage in

Portugal's new socialist government plans to continue the privatisation of Portucel-I in 1997 following a restructuring of the country's pulp and paper sector. It is expected to amigince plans for some form of merger or association between Portucel-I, Soporcel, Portugal's second-largest pulp and paper producer, and Inapa, a paper manufacturer, which are all directly or indirectly controlled by the state. An initial public offer of 40 per cent of Portucel-I raised Es35.65bn 1887

Sales rose 34 per cent to Es70.5bn from Es52.5bn in 1994, the group said. Exports, mainly to western Europe, represented 66 per cent of the total. Net cash flow climbed 150 per cent to Es25bn. Portucal will pay a 1995 dividend of Es45 a share, representing a dividend yield of 5.1 per cent. The company said it was setting aside Es1.85bn to ensure a similar level of payments in years when profits were hit by cyclical Peter Wise, Lisbon

#### DG Bank bounces back

DG Bank Deutsche Genossenschaftsbank, the umbrella organisation of Germany's co-operative banks, bounced back to normality after a crisis in the early 1990s. It reported an 18.8 per cent increase in 1995 operating profits to DM553m (\$348m) before risk provisions, and a rise in the interest surplus by 5.3 per cent to DM1.18bn. DG Bank has decided to resume dividend payments to its owners, a decision which Mr Bernd Thiemann, chairman, described as an "important signal". DG Bank's financing operations increased income by 8.7 per cent to DM165.3m. After taking out individual and country risks operating profits were DM345.6m after a loss of DM214m in 1994. Wolfound Münchau. Frunk Wolfgang Münchau, Frankfuri

#### Elektrowatt rises to SFr178m

Elektrowatt, the Swiss electricity and engineering group. posted net profits after minorities up from SFr172m to SFr178m (\$148m) for the year to the end-September. Operating profits rose from SF1469m to SF1489m on sales up from SFr4.94bn to SFr4.98bn. Earnings per share fell from SFr21.60 to Sfr20.80. The group expected a further improvement in sales operating profits in the year to Sept 198 in January it would propose an unchanged SFr11.50 dividend.

#### Fokker 'must go bankrupt'

Fokker, the struggling Dutch airplane maker, has repeated that bankruptcy was an unavoidable step in its continuing quest to secure its future. Mr Ben van Schaik, management board chairman, told Dutch television, "Only then can Fokker have any future". Ronald van de Erol, Amsterdam

#### VNU posts 25% improvement

Better results from business publishing in the US and Europe were the main factor behind a 26 per cent increase in 1995 net profits before extraordinary items, at VNU, the Dutch publisher. Net profits before extraordinaries rose from Fl 218m to Fl 274m (\$166m), producing a 19 per cent increase in profits per-share from Fl 1.21 to Fl 1.44. VNU's dividend is to be raised 20 per cent from Fl 0.40 to Fl 0.48. Net profit, including extraordinary items, more than doubled from Fl 206m to FI 430m, largely reflecting an earlier reported FI 163m gain on the sale of Disclosure, the group's US information company. Turnover rose 10 per cent to Fl 3.05bn, with acquisitions. accounting for slightly more than half the increase.

#### Porsche sees surge in output

Porsche, the German sports car group which saw sales plummet in the early 1990s, expects to boost output to 18,500 units in the 1995-96 financial year, from 17,268 in 1994-95 and virtually double that to about 30,000 in 1996-97.

The sharp expansion would come from the group's new two-seater "Boxster" convertible due to be launched in September. Mr Hans Riedel, Porsche's head of sales and marketing, said more than 10,000 customers had made down-payments on Boxsters. Scotching fears that many would be trading down from Porsche's dearer 911 range, he said research into 2,500 potential customers had shown that 80 per cent were first-time buyers.

Porsche expected output to be divided equally between the 911 and the Boxster once the newcomer was in full production. Mr Wendelin Wiedeking, Porsche's chief executive, revealed the car, with a mid-mounted six-cylinder engine, would cost DM76,500 (\$52,000) in Germany.

The company, which made net profits of DM10m in the first half of the current year, declined to give a full-year forecast beyond saying it should be "clearly better". Sales to the end of January 1996 jumped 17 per cent to 9,570, compared with the same period last year.

Haig Simonian, General Haig Simonian, Geneva

#### Danish shipyard to close

A reconstruction plan to save Copenhagen's Burmeister & Wain Shipyard collapsed amid mutual recriminations between the vard's creditors. The Danish company's receivers said they would now close the yard in about 14 days when it had completed its last order

The reconstruction plan was provisionally agreed on February 17, but yesterday American insurance companies holding convertible bonds in the shipyard said the agreement terms had been violated.

Two creditors, insurance company Old Mutual and Chemical Industrial Bank, have made a side-deal by which they would receive cash for their bonds from Japan's Mitsui Engineering Company. Mr Wilbur Ross, of Rothschilds in New York, acting for US bondholders, said this constituted unfair preferential treatment for two creditors.

Hilary Barnes, Copenhagen

#### The company had been prod-2.7 per cent drop. consumption over the past two over the next three to five The optical group joined a dejected trail of recent disapucing double-digit sales and years: department stores, for earnings growth in recent In Germany, the argument example, sadly outperformed

By Peter Norman in Bonn

Bayerische Vereinsbank, the Munich-based bank, yesterday increased its dividend for 1995 after strong growth in group profits in the second half of

The bank, which last year changed the nominal value of its shares to DM5 from DM50, will pay DM1.5 per DM5 nomiDM50 share the previous year.

Group net profit increased 16.3 per cent, from DM565m in 1994 to DM657m (\$445m), while operating profit after loan loss provisions rose 29.9 per cent, from DM1.06bn to DM1.38bn.

Joining a slowly growing trend among large German companies to greater transparency in financial reporting, the

some important group results according to International Accounting Standards.

Yesterday's figures pointed to a strong recovery in second half profits. The bank earlier reported that its operating profit at the end of June was 6.6 per cent less than half the operating profit reported for 1994. Using the same method of comparison, operating profits

nal share against DM14.5 per due on March 21, would give at the end of September were 5.3 per cent up on three quarters of the previous year's

> The company said the recovery reflected a strong performance by group members, particularly Vereinsbank's mortgage bank subsidiary. The group's stock of mortgage lending increased 15 per cent to DM107bn. There was also a

from trading on the bank's DM1.06bn. Running costs own account, from DM7m in 1994 to DM270m. In 1993, the group earned DM318m from

own-account trading. Profits last year were also helped by a 24 per cent drop in loan loss provisions, from DM949m to DM721m. The group's interest surplus increased 2.7 per cent to DM4.43bn, while commission

Bayerische Vereinsbank lifts payout after late surge increased 6 per cent to DM3.66bn but this included substantial investment in Ger-

many and abroad. The bank said the rate of cost increases was halved last year from 1994, when outlays had jumped from DM3.08bn in 1993 to DM3.46bn.

The group balance sheet total rose 12.1 per cent last

■ The Peugeot chairman, Mr Jacques Calvet, said he expec-

ted the French car market to

Haig Simonian talks to manufacturers at the Geneva Motor Show, which opened yesterday

## Audi upbeat about demand for new models

wagen group, expects another Profits before tax in the first full year.

strong year in 1996 on the back half of last year jumped to The new mod of new models and continuing strong demand for its highly-

popular A4 saloon. Mr Herbert Demel, chairman, said in an interview that the company "hoped to repeat the success of 1995", this year. Audi's full results will not be published until April. Howhalf of last year jumped to DM250m, while sales for the full year climbed almost 20 per

cent to more than 447,000 units, buoyed by the A4. Audi built about 260,000 A4s and 30,000 of the previous Audi 80 model in 1995. Mr Demel said sales this year were expected to remain stable, in spite of

Audi, the executive cars (\$271m), compared with subsidiary of Germany's Volks-DM189m in 1994. with is expected to attract at least mid-range model and a 90 hp new aluminium TT convertible diesel. A high-performance and coupé, unveiled last year.

The new model, a three-door hatchback built on the platform of VW's next generation Golf model, due next year, would go on sale in the autumn. Mr Demel declined to give a sales target, but said Audi had the capacity to build

up to 100,000 units a year. Sales would start with a range of medium-priced vehicles, including a 125 hp

150 bp turbocharged version Audi expects to build about

would follow The A3 marks a further step in Audi's drive to broaden its range and capture younger motorists. Mr Demel said the introduction of convertibles, coupes and station wagons had already lowered the average

age of owners to about 48. The appeal to the "young in spirit", reinforced by the A3, should be accelerated by the

20,000 coupés a year, with sales starting in 1998. Sales of the convertible, expected to be launched in 1998, should reach

about 10,000 units annually. The new cars will continue

Audi's innovative use of aluminium for some of its vehicles. Mr Demel confirmed that parts of its next-generation A6 saloon would be alu-



Mercedes Benz shows off its new E-Class at the 66th Geneva Motor Show

## Lotus confirms takeover talks

Lotus, the UK engineering pletely 100 per cent incorrect". company best known for its The long-term future of sleek sports cars, is talking to potential buyers. However, yesterday it denied it had already been sold to Daewoo, the acquisitive Korean industrial

"The shareholders bave

decided to allow other parties the opportunity to participate through investment . . . to strengthen the company structure," the company said. All questions about potential investors were referred to a

prepared statement, which said: "The negotiations do not involve financial organisations. but industrial companies with strong financial resources to carry out their own programmes in conjunction with those of Lotus to take advantage of synergies."

Lotus dld not deny it was talking to Daewoo. However, Mr Neeraj Kapur, the UK company's finance director, said day. reports of a sale were "com-

The long-term future of Lotus, which has about 1,000 staff at its base near Norwich, has been put in doubt because of the financial difficulties of Mr Romano Artioli, its owner.

His problems came to a head when a court in Modena, Italy declared Bugatti Automobili insolvent last year. Mr Artioli re-established Bugatti to build highly-expensive "supercars" in the early 1990s and bought Lotus from General Motors two years ago.

Bugatti's financial plight triggered speculation of possible side-effects for Lotus. However, the UK company has maintained it is unaffected by the court action.

The impact of the Bugatti bankruptcy - and the ultimate ownership of Lotus, as well as

i's other activities - was

thrown into confusion yester-

its relationship with Mr Artiol-

Mr Artioli's lawyers appear to have conducted various legal moves to ensure Lotus's isolation from Bugatti and its Luxembourg-based holding company (which was also believed to control Lotus).

The company says there is strong demand for its cars and engineering services. Net earnings rose to £5.8m (\$8.9m) last year from £3.6m, while sales climbed by more than 20 per cent to £55m from £54m. Mr Kapur said Lotus needed

extra capital to finance its engineering and carmaking activities. Engineering, which has always been the most attractive side of the business for potential suitors, has recently invested in new test facilities and has a long order book.

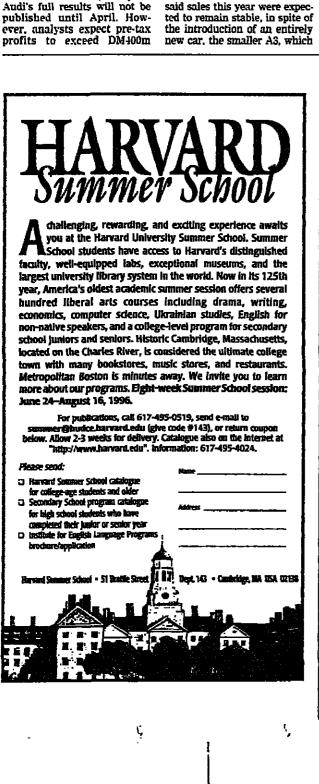
Any sale to a big carmaker could compromise its independence to solicit business from other car companies, raising doubts about the likelihood of Following the court action, a sale to Daewoo.

grow 1 per cent in 1996. In flat growth for the market this year. He reiterated an earlier forecast that the European car market would grow by between 2 per cent and 2.5 per cent this year. His European forecast agreed with that of Mr Louis Schweitzer, Renault's chairman. Mr Calvet said that in France, after a calamitous December, sales had rebounded in January and February. He said that because of currency factors, manufac-turers in Italy, Spain and the UK had a considerable advantage over French and German AFX News, Geneva ■ Mr Calvet warned that

Peugeot would stop buying from Valeo, the French components group, if the car parts company were taken over by a group that he considered detrimental to the French carmaker's interests. "If it [the buyer] did not please me, I would progressively halt my purchases from Valeo," Mr Calvet said. He said he did not want Valeo controlled by a carmaker - or a components group under the control of a carmaker or a supplier which would subsequently win a monopoly position. Reuter, Geneva

■ Mr Helmut Werner, chairman of Mercedes-Benz, said the German carmaker's 1996 results would be at least as good as the DM2bn-plus figure it achieved in 1995. In 1994, Mercedes generated a profit of DM1.85bn. The Mercedes chairman also said the company as a whole was making a return on capital of about 12 per cent. Parts of the company were at more than 80 per cent.

of the E-class cars had reached capacity after strong demand for the car at he start of this year. He said January domes-tic car sales had climbed 15 per cent, with US car sales up 26 per cent and Japanese car sales up 21 per cent from a year earlier. Mr Werner was speaking at a dinner to launch Mercedes' E and C class estate models and V class family bus. Reuter and AFX News, Geneva



Mr Werner said production

■ General Motors (Europe) 1995 net profit rose 14.5 per cent from \$695m to \$796m a year earlier, Mr Louis Hughes, General Motors vice-chairman, AFX News, Geneva

DIGEST

ive-fold

back

Marie Company

o SFr178m

Service Control of Con

inkrupt"

provement

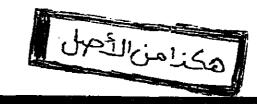
provenien

n output

The second of th

Section Section (1977)

venture



Global Performance

One Firm Made A World Of Difference In Equity Capital Markets In 1995.

The name: CS First Boston, Last year
we led more than 50 issues raising over
\$15 billion of equity capital for our
clients. Among them were many of the
year's most complex deals – landmark
transactions that required the kind of
innovative solutions that we bring to all
our clients around the globe.

Sandoz Convertible Bonds Switzerland Pharmaceuticals	Gueei Group NV°  Initial Public Offering Italy  Lusury Goods	Common Stock United States Machinery	SwissRe Finance Ltd.  OID Convertible Bonds  Switzerland  Insumnce	Royal PTT Nederland NV*  Rest of World Tranche Common Stock Netherlands Telecommunications	transactions that required the kind innovative solutions that we bring our clients around the globe.						
\$451,000,000  UCAR International Initial Public Offering United States Carbon/Graphice	\$450,000,000  International Paper  Convertible Preferred  United States  Paper & Forest Products	\$383,592,500 SwissRe Finance Ltd. Warrants Switzerland Insurance	\$358,800,000  Diamond Offshore Drilling Initial Public Offering United States Energy	\$321,000,000  JSC Oil Company LUKoil  Convertible Bonds  Russia Energy	\$301,000,000  SGL Carbon*  Common Stock  Germany  Carbon/Graphite	\$283,400,000  California Energy Company  Cammon Stock  United States  Energy	\$255,300,000  Northwest Airlines  Common Stock United States  Transportation				
\$220,000,000  Fletcher Challenge  Common Stock  New Zealand  Forest Products	\$227,700,000  ASM Lithography Holding NV  Initial Public Offering Netherlands Technology	\$190,400,000  Wolverine Tube  Common Stock  United States  Capital Goods	\$190,400,000  Tele- Communications  Common Stock  United States  Media	\$181,000,000  SGL Carbon*  Initial Public Offering  Germany  Carbon/Graphite	\$172,500,000  K-III Communications*  Initial Public Offering United States  Media	\$171,700,000  Banco de A. Edwards  Initial Public Offering  Argentina  Banking	\$166,000,000  Böhler-Uddeholm  Initial Public Offering  Austria  Specialty Steel				
\$163,400,000.  Horace Mann Educators  Common Stock  United States  Insurance	\$147,300,000  Genzyme Corporation  Tracking Stock United States  Healthcare	\$132,800,000  American Financial Group  Common Stock I'nited States Insurance	\$131,000,000  Houghton Mifflin/INSO  Stock Appreciation Linked Securities United States  Technology	\$115,000,000  Baby Superstore Convertible Debentures United States Retail	\$111,000,000  Sky City  Common Stock  New Zealand  Gaming	\$106,000,000  Crisplant  Initial Public Offenng  Denmark  Capital Guads	\$102,000,000  Leucadia National  Common Stock  United States  Insurance				
\$98,000,000  Rauma Oy  Initial Public Offering  Finland  Capital Goods	\$92,500,000  ADVANTA  Stock Appreciation Linked Securities United States Financial Services	\$90,100,000  American Radio Systems  Initial Public Offering United States  Media	\$90,000,000  Siam Sindhorn  Convertible Bonds  'Thailand  Real Estate	\$81,000,000  Comp USA  Common Stock United States  Retail/Technology	\$79,600,000  Baby Superstore  Common Stock United States  Retail	\$76,000,000  Lonrho Finance  Convertible Bonds  United Kingdom  Conglomerates	\$75,400,000  Vencor  Common Stock  United States  Healthcare				
\$67,000,000 Christiania Bank* Common Stock Norway Banking	\$65,000,000  LG Chemicals Ltd.  Global Depositary Shares  Korea  Chemicals	\$64,400,000  Easeo  Initial Public Offering  United States  Capital Goods	\$62,100,000  Toy Biz  Initial Public Offering United States Consumer Goods	\$60,000,000  Argyle Television  Initial Public Offering United States  Media	\$50,000,000  Samsung Heavy Industries  Convertible Bonds  Korea  Capital Gouds	\$45,000,000  Genzyme Tissue Repair  Thacking Stock United States Healthcare	\$45,000,000  Spacehab  Initial Public Offering  United States  Acrospace				
\$41,700,000 INSO	\$37,000,000  Repsol*  Rest of World Transie	\$34,600,000 Ostex International	\$32,000,000 Komereni banka	\$28,600,000 Pharmacyclics	\$27,600,000 Commerce Bancorp	\$25,600,000 Alexander & Alexander	\$10,300,000 Saga Communications				

\$1,024,000,000

Nordbanken

Initial Public Offering

Banking

\$168,000,000

\$3,960,000,000

ENI S.p.A.

Initial Public Offering

Italy Energy

\$563,500,000

\$620,000,000

de Nemours

\$500,000,000

Joint lead managed, Issued by CS First Boston Limited — regulated by F.

Common Stock

Rest of World Tranche

Spain Energy Initial Public Offering

· Healthcare

Common Stock

Czech Republic



Initial Public Offering

United States

Common Stuck

United States

CS FIRST BOSTON

Common Stock

United States

Common Strick

United States

## Competition and costs take toll on Haeco Thai

By John Ridding in Hong Kong

Hong Kong Aircraft Engineering Company (Haeco). a listed subsidiary of the Swire group, yesterday announced a sharp fall in profits for 1995 and warned of further difficulties and a fall in margins this

Revealing a 20 per cent fall in net profits, from HK\$413.6m to HK\$331.3m (US\$42.9m). Haeco said the "disappointing result" largely reflected compe-tition within the industry and the impact of inflation on its

Haeco has suffered from the rise in capacity in the interna-tional aircraft engineering industry, and from the steady erosion of profit margins. "Global overcapacity in beavy airframe maintenance has continued to have an adverse

impact on market rates," the

Mr Mark Simpson, head of research at ING Barings in Hong Kong, said the results were below expectations and the latest in a series of disappointments from the company. He said the main concern was the fall in operating margins, to about 11 per cent in the second half of the year from about 17 per cent in the comparable period in 1994.

Analysts forecast a further fall in underlying profits this year, although net profits will be boosted by a HK\$156m exceptional item resulting from the formation of a 50-50 joint venture with Rolls-Royce last year. Mr Simpson cited some positive factors which would feed through, including a fall in inflation in Hong Kong and an upturn in aviation

Telekom Malaysia, the

country's largest listed com-

pany, produced revenues and net profits for 1995 generally in

line with analysts' expecta-

tions. The company, which was partially privatised four years

ago, said it was confident of

The group reported pre-tax profits of M\$1.93bn (US\$758m),

a 15 per cent improvement on

the year before. Revenues

came in 17 per cent ahead at M\$5.25bn, while earnings per

share were up 13 per cent at

Mr Mohamed Said Mohamed

Ali, chief executive, said it had

been a satisfactory perfor-

mance despite a year of reor-

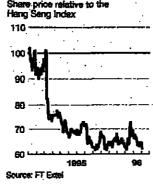
ganisation and restructuring.

He said the group intended to

sustaining growth.

By Alan Cane

Haeco



For the moment, however, the outlook is difficult. "It is likely that margins in all areas of the company's business will continue to suffer." said Haeco. Although falling, inflation would continue to push up the company's cost base and

use its profits in capital expen-

diture to increase telecoms

The group would match or

increase its capital expenditure to meet its obligation to pro-

vide universal service and to

improve services in rural

Residential line growth, at 16

per cent, was weak in the sec-

ond half of the year compared

with 19.5 per cent in the first six months. Business line

growth, however, was 17.3 per

cent in the second half com-

pared with 16.5 per cent in the

first, so that growth in this sec-

tor exceeded residential line

growth for the first time since

Mr Andrew Harrington,

Asian telecoms analyst with

Salomon Brothers, said he

believed the decline in residen-

Southcorp blames higher

interest charges for fall

areas, he said.

facilities for its customers.

500

erode profitability, it said. In addition, Haeco said that Cathay Pacific, its biggest customer and another member of the Swire group, was expected to reduce its requirements for heavy airframe maintenance in Hong Kong. This is partly

Telekom Malavsia

Share price relative to the KLSE Composite

because the two-bay hangar a racco, the company's associ soar despite ate, becomes operational thi

telecoms

TelecomAsia and Thai

land's two private operators of

fixed-line telecommunications

services, have reported

substantial profit growth

Full financial details were

not released, but analysts said

most of the growth came from non-operating income.

TA, a joint venture between
Thailand's CP Group and

Nynex of the US which has a

concession to install and operate 2.6m telephone

lines in the Bangkok area,

reported net profit for 1995 of Bt1.29bn (\$51.2m), more than double the previous year's

TT&T. a joint venture

between Jasmine and Loxley

of Thailand and NTT of Japan

which has a concession to install and operate 1.5m lines in the Thal provinces, reported

net profit for 1995 of Bt830m,

a 336 per cent increase over 1994's Bt190m.

Analysts said at least 70 per

cent of the profit of the two

companies came from non-

operating income, in TA's case

through the sale of shares in

United Communications;

TT&T's gain came through the

for 1995.

ear.
Taeco, which is based in Xis Operating men in southern China, expected to see strong growt as a result of its low costs Weakness However, the Swire grou claims the overall growth i By Ted Bardacke air traffic and maintenand in Banckok requirements in the region wi be boosted by the completio Hong Kong's new airpor Telephone and Telecom, Thai-This is scheduled for Apr

Last year's result achieved on sales of HK\$2.39bn, down slightly o HK\$2.41bn in 1994. Profits we lifted by a HK\$17m exceptions item resulting from the diposal of its stake in ASTA A craft Services. Haeco said i total dividend for 1995 is to reduced to HK\$0.80, fro

Steady growth at Telekom Malaysia expect the historic trend

re-emerge in 1996." He said that because of h line growth in the past for years, Telekom Malaysia w now experiencing diminish returns characterised declining margins, falling renue per line (masked by residential line growth in 19

and shrinking waiting lists. Concern that the group profitability would be affect increased competition the government awarded on ator's licences to nine com

capitalisation of overheads. and by not depreciating existing lines. nies was played down by To kom's general manager corporate finance, Mr R "We even think TA would have had a loss if it wasn't for the Ucom sale," said one ana-Noorma Raja Othman. He sa There will not be mu lyst at a foreign brokerage impact this year from comp in the industry.

The main problem on the operating side is that in spite of an overall shortage of telephone lines in Thailand, the companies have saturated traditional markets of high usage with new lines, creating a surplus that is going unused and therefore not generating More than one-third of TA's

installed lines have no sub-scribers, while the figure for TT&T is above 50 per cent,

when ongoing installation,

Analysts point out that installation is likely to be

also the potential of addedthrough their telephone lines. such as the recently inaugurated cable television

contrast with the continued high growth of mobile phone services, which reported surprising large profit growth on Monday - mostly on the back of sales in the provinces, where fixed lines are still in

## O'Reilly's S Africa arm advances 45%

Independent Newspaper Holdings, the South African subsidiary of Irish entrepreneur Mr Tony O'Reilly's Independent Newspapers, posted a 45 per cent increase in attributable income to R60.7m (\$15.6m) for calendar 1995, its first full year of trading. Mr Liam Healy, chief executive of Independent Newspapers

in Ireland, said the results "vindicated" the group's decision to take over the former Argus Newspapers group in the run-up to South Africa's first multi-racial elections in 1994.

Earnings per share rose 31 per cent from 92.7 cents to 134.6 cents, and the final dividend was 60 cents. The dividend for the group's first nine months of operation, to December 31 1994, was 20 cents.

The group launched three new titles at a cost of R9m during the period: The Sunday Independent, a broadsheet for the densely populated Gauteng province; and two supplements to existing national publications – Sunday Life magazine and Business Report. Only R1m of the start-up cost was taken last

Operating income before exceptional items was R102.3m, an increase of 41 per cent on turnover 21 per cent higher at R872m. Exceptional costs increased from R2.5m to R9m because of technological upgrades and job cuts. These were offset by a rise in margins from 12.3 per cent to 14.3 per cent, despite the sustained fall in newspaper circulation among the group's traditional market of predominantly white readers. Mark Ashurst, Johannesburg

#### Pacific Dunlop court exclusion

Pacific Dunlop, the Melbourne-based conglomerate, said yesterday that a US court had excluded non-US persons from the class action being brought against the company's Telectronics heart pacemaker unit.

The litigation centres on a brand of pacing leads, some of which later developed faults. Pacific Dunlop, which is also facing legal actions in France, Canada and Australia, said the ruling would remove 18,500 potential plaintiffs from the US

Meekatharra to proceed

Meekatharra Minerals, the small Australian exploration company, said it planned to go ahead with development of a gold mine at Way Linggo in southern Sumatra.

It said that the project would have a capital cost of US\$15m. and the mine's project cash operating costs were below \$200 per ounce. It said that, pending regulatory approvals and the securing of financing arrangements, it planned to begin mining in early 1997. Annual production was estimated at up to 35,000 tonnes of gold and 500,000 ounces of silver.

The Meekatharra statement was made in response to a stock exchange query over the recent rise in the company's shares.

#### Orlando Wyndham expansion

Pernod-Ricard, the French wines and spirits group, is to expand production facilities at its Orlando Wyndham winery in South Australia. According to a South Australian government delegation, which met the company of the new bottling line is to be installed, and vineyard development Nikki Tab

#### Toshiba Corp raises forecast

Toshiba Corp's sales of personal computers worldwide will exceed Y400hn (\$3.8bn) in the business year to end-March 1996.

advantage than budgeted," it said. This is important because most of Toshiba's PC sales are overseas, it noted.

#### Honda Motor in Vietnam

Meanwhile, Malaysia Holdings has signed an agreement to manufacture and distribute electric scooters in Asia for France's Peugeot group. The company currently assembles and distributes Peugeot cars in Malaysia.

#### Sales climb to \$760m at De Beers

By Mark Ashurst

De Beers, the South African diamonds group basking in the wake of last week's pact with the Russian government to preserve its dominance of world diamond supply, yesterday posted a 21 per cent increase in income from diamond sales in calendar 1995, to

Combined attributable earnings for De Beers Consolidated Mines and De Beers Centenary rose 11 per cent from \$560m to \$624m. Equity-accounted earnings were up 18 per cent to \$986m as retained earnings from associates rose 33 per cent to \$362m.

Combined final dividends increased 15 per cent to 67.4 cents per De Beers/Centenary linked unit, which boosted the year's dividend to 92.9 cents from \$4.4 cents.

Analysts welcomed the terms of the deal with the Russian government, which guarantees exclusivity for De Beers to buy 95 per cent of Russian diamonds for export and distribution through the group's London-based Central Selling Organisation. -

Net diamond stocks were \$4.7m against \$4.4m, with stockpiles at the South African Venetia mine 43 per cent higher at R1.6bn (\$410.3m) compared with R1.2bn.

Income from investments, notably Anglo American and its industrial arm. Amic, was \$223m against \$196m. Although non-diamond inter-

ests comprised 58.6 per cent, or R38.5bn, Beers has traded at a discount of 28.7 per cent to net asset value.

to the holders of the outstanding

US\$ 200,000,000

101/2 per cent Guaranteed Bonds due 2000 of

State Development Institute

(incorporated with limited liability under the laws of the Republic of Hungary)

Unconditionally and irrovocably guaranteed as to payment of principal and interest by

Republic of Hungary

Guaranteed as to payment of principal only and only at maturity

International Bank for Reconstruction

and Development

Nance is hereby given that, pursuant to the provisions of the Trust Deed dated 31st August, 1990 (the «Trust Deed») made between State

Development Institute (the «Issuer»), Republic of Hungary («Hungary»),

International Bank for Reconstruction and Development (the «World

Earky) and The Law Debenture Trust Corporation pilic (the «Trustee»)

constituting the outstanding US\$ 200,000,000 10 % per cent. Guaranteed Bonds due 2000 lithe "Bonds") of the Issuer, the Trustee has agreed with the Issuer, Hungary and the World Bank to the substitution

of Hungarian State Treasury (the «Substitute Issuer») in place of the

Issuer as principal debtor in respect of the Bonds. Accordingly, with effect on and from 29th February, 1996, all obligations of the Issuer

under the Sonds (including in respect of accrued interest), the interest coupons appertaining thereto (the \*Coupons\*) and the Trust Deed

The guarantees given by Hungary and the World Bank remain in effect

No new definitive Bonds or Coupons will be issued and existing Bonds

Copies of the First Supplemental Trust Deed dated 29th February, 1996 made between the Issuer, the Substitute Issuer, Hungary, the World Bank and the Trustee and of the First Supplemental Agency Agreement dated 29th February, 1996 made between the Issuer, the Substitute

issuer, Hungary, the Trustee and the Agents referred to below, in each case giving effect to the substitution are available for inspection during normal business hours by the holders of Bonds and Coupons at

**Principal Paying Agent** 

Kredietbank S.A. Luxembourgeoise 43 boulevard Royal, L-2955 Luxembourg

Other Paying Agents

Kredietbank N.V., London Branch

7th Floor, Exchange House

have become the obligations of the Substitute Issuer

and Coupons will remain valid

Kredietbank N.V.

7 rue d'Arenberg

9-1000 Brussels

Belaium

the offices of the Agents referred to below.

By Nikki Tait

Brewing group which takes in packaging, appliance manufacturing and wine interests, yesterday announced a 14.2 per cent drop in after-tax profits in the six months to end-December, to A\$52.4m (US\$39.8m). In the same period a year ago it made A\$61m. The company said sales

Southcorp, the former SA

increased from A\$1.17bn to A\$1.32bn. while operating profit before tax and abnormal items was 11.2 per cent lower, at A\$92.1m.

to A\$30.1m as Southcorp acquired Hoover Australia from Maytag of the US and also the Smorgen PET plastic bottle operations. On a divisional basis, South-

ing market

corp said that pre-interest

earnings from the appliance business were down 52.6 per cent to ASI4.6m. The result was below expectations, and the company said sales volumes had been hit by the downturn in Australia's hous-

partly on higher interest hopeful of a profitable June cents lower at A\$3.27.

although a cool summer affected sales to the beverage

producers. The US water heater group,

meanwhile, remained in the t A\$92.Im. red, but with losses reduced, the year. nue 11.7 per cent abe The downturn was blamed and Southcorp said it was The group's shares ended 4 son and Horton said.

charges. These almost doubled quarter. On the packaging front, pre-interest profits rose 11.2 per cent, in line with expectations.
Rural sector demand rose,

tial line growth in the latter

part of the year was an aberra-tion. "We do not believe that

The wine division remained the most buoyant part of the business, with pre-interest earnings rising almost 25 per cent to A\$47.6m. In the UK. sales were up 20 per cent, and in the US, by 75 per cent. The company said it was looking for an international wine acquisition before the end of

tax profits of NZ\$35.6 (US\$24m), said tight busin conditions had hurt volume all sectors of the media, Rev reports from Wellington.

interest and tax. "Notwithstanding the cult conditions...the N

Zealand Herald traded strong with total advertising volume 5.7 per cent ahead of last yes corresponding period and rnue 11.7 per cent ahead,"

advertising had been strd and extra colour and insert facilities would be instal during the current year. Wilson and Horton said publishing market remail

competitive, but its two we magazines had produced s factory profit results. Last month it announced that Mr Phillip

tace, former Avis finance d-tor for Australasia, was join the publisher as chief finan

### NZ publishe up 25% at nine months

New Zealand publisher Wil and Horton, which yester announced nine-month af

The company said the re-represented a 25 per d increase in earnings bet

The demand for col-

analysts say. This is happening at a time

and hence capital expenditures, must continue: the companies must keep to a man-dated installation schedule or risk losing favour with the government in what is an extremely politicised business.

completed by the end of 1996, when the companies can turn their focus more towards In the case of TA, there is

value services delivered service, Universal Cable Television. The fixed-line results

### government delegation, which met the company in Paris, a

much more than the company's previous forecast of Y363bn, the company said yesterday. "The yen's stabilisation has provided a better exchange rate

Honda Motor is awaiting final approval for a project which would see the Japanese company's motorcycles produced for the first time in Vietnam. A licence for the project - a joint venture plant 30 per cent owned by Vietnam's Agricultural subsidiary, Asian Honda Motor - may be granted within

The plant, to be located in Vinh Phu province north-west of Hanoi, is capitalised at \$30m, and production could start within two years with initial output of of 300,000 motorcycles a year, rising to around 450,000 by 2005.

Small-engine motorcycles are fast replacing bicycles as the main means of transport in Vietnam's cities. In mid-1995 there were 2.7m registered motorcycles in Vietnam, a country of 74m people. Vietnam expects to import a further 2.35m before the end of the century, according to official figures.

Reuter, Hanoi and Kuala Lumpus

## MERCURY OFFSHO STERLING TRUST SICAV

NOTICE OF EAORDINARY GENERAL MEETING SHAREHOLDERS The Extraordinary General Mg of Shareholders of Mercury Offshore Sterling Trust ("the Company) teld on 15th February 1996 not having reached the quorum of pres required by law and the Articles of Association, a further Extractory General Meeting will be held at 61, route de Trèves, L-2633 Senniberg, Luxembourg at 11.00 am on 20th Meeting 1998.

The Extraordinary General Me, of the Fund will consider and vote upon a proposal to amend the Arti of Association. Such amendments will include in particular provisions include in particular provisions

1. To amend the Articles of Alasion to permit the change of the Company's registered officeseningerberg.

Amend Article 28(7) of chicles of Associato replace the name S.G. Warg Group pic will Mercury Asset Managemeroup pic.

The resolutions on the Agent the Extraordinary General Meeting of Shareholders may be passed a majority of 75 per cent. of the votes cast theron at the speeting. T will be no quorum requirement for the

represented by a cary ances proxy;
the holders of Bessers Si must deposit their shares not later
than 15th March 1996 is with the Administrator of the
Company, or with any or Basacial institution acceptable to
the Company, and the two Deposit Recepts (which may be
obtained from the Administrator of the Company) must be forward
to the Administrator of Company to surise not later than 18th
March 1996. The Share deposited will remain blocked until th
day after the meeting or adjournment thereof;
Shareholders who camptend the meeting in person are

Shareholders who camptend the meeting in person are invited to send a duly elected and signed proxy form to the Administrator of the Casy to arrive not later than 18th March 1996. Frusy forim be obtained from the Administrator Proxy forms already red for the meeting held on the 15th February 1996 will be to wote at the meeting convened for 20th March 1996.

Information for Stareholders

Shareholders are advised that at subject to amendment, of the proponew Articles is available for insion at the following places and at the ADMINISTRATOR: Mercury Asset Manager 6D, route de Trèves, L-2653 Senningerberg,

Lancembourg S.A., 69 route d'Esch L-1470 LUXEMBOURG

The Board of Director

PAYING AGENTS:

6th March 1996

FORWARD TRUST LIMITED

**NEW INTEREST RATES** FOR DEPOSIT ACCOUNTS With effect from 6 April 1996.

Notice Period	Net Interest % p.a.	Gross Interest % p.a.	Gross Interest (CAR) % p.a.
* 7 days	3.60	4.50	4.55
1 months	3.72	4.65	4.70
3 months	3.84	4.80	4.86
6 months	3.96	4.95	5.01
12 months	4.08	5.10	5.16
* Applies to existing	accounts only	v. New Accour	ts at 7 days notic

Interest on the above accounts is paid or credited twice yearly. Interest rates are subject to variation.



Full information about Notice Accounts is available from: Forward Trust Limited, Deposits Department, 12 Calthorpe Road, Birmingham B15 1QZ, Telephone 0121 455 3417.

The FT can help you reach additional business readers in France. Our link with the French business newspaper, Les Echos, gives you a unique recruitment advertising opportunity to capitalise on the FT's European readership and to target the French business world. For information on rates and further details please telephone: Toby Finden-Croits on +44 171 873 3456

Primrose Street London EC2A 2HQ, England Registrar (b) In determining whether the exercise Conditions or Designee Exercise Conditions have been met in respect of any Exercise Notice or Designee Exercise Notice, as applicable, the Warrant Agent shall first consider all Exercise Notices and give effect to Kredietbank S.A. Luxembourgeoise 43 boulevard Royal, L-2955 Luxembourg **Transfer Agents** or treated as having been exercised by a Company Designee, the Warrant Agent determined that any excess funds have been submitted by or on behalf of such Company Kredietbank N.V. Kredietbank N.V. Kredietbank N.V. New York Branch Designee, the Warrant Agent shall testim such funds to the person remaining the same tafter dethiction of any applicable remittance charges and without interest thereon). Section 3: Except for the terms and conditions of the Warrant Agreement expressly 7th Floor 125, West 55th Street Exchange House 10th Floor New York, N.Y. 10019 Primrose Street U.S.A. England the terms and conditions of the Warrant Agreement, as amended and supplemental herent, shall commue in full force and effect

TATA ENGINEERING AND LOCOMOTIVE COMPANY LTD ("TELCO") Notice is hereby given that as of February 28, 1996 the Directors of the Company and Citibank S.A. as follows:

NOTICE TO HOLDERS OF WARRANTS

TATA ENGINEERING AND LOCOMOTIVE COMPANY LIMITED 7.142,258 Warrants to Purchus 7,142,858 Ordinary Shares (per value Rs. 10 per share)

AMENDMENT NO. 1 TO WARRANT AGREEMENT THIS AMENDMENT NO. 1 TO WARRANT AGREEMENT (the "Arts dated as of February 28, 1996 between Tata Engineering and Locomotive Company Limited, a public company incorporated in the Republic of India with limited hability the "Company") and Cribank (Laxemboure) S.A. as warrant agent, registrar and transfer agent (the "Warrant Agent", "Registrar" and "Intersfer Agent" which expressions shall include any additional warrant agents, registrars or transfer agents) appointed by the Company to act in such respective capacities, amends and supplements the Warrant Agent (the Company and the Warrant Agent (the

Unless the context otherwise requires, cantalized terms used in this Amendmen without definition shall have the respective meanings specified in the Warrant Agreement.

WHEREAS, the Company desires to amend the Warrant Agreement to provide that
any Warrants issued pursuant to the Warrant Agreement which have not been exerused by
the Warrantholder thereof on the Equitation Date may be exertised by a designee of the
Company pursuant to a Designee Exercise Notice (as defined below) delivered to the

WHEREAS, the parties hereto agree to enter into this Amendment, which is

WHEREAS, the parties agree to enter the unit runs and the receding recital; and WHEREAS, the parties agree that the Amendment does not materially adversely pasts of the Holders or Beneficial Owners as of the date here NOW THEREFORE, in accordance with Section 18 of the Warrant Agreement, each hereto agree-to amend and supplement the Warrant Agreement as follows: on! The last sentence of Section 4.2 stull be deleted in its intimity and replaced

At the close of banking business in London, Eagland on the Expansion Date any Warrants which have not been exercised by the Warrantholder thereof will lague and cease to be valid for any purpose, provided that such warrants will be treated as having been exercised by a Company Designee (as defined below) if and to the extent that the Designee Exercise Conditions have been

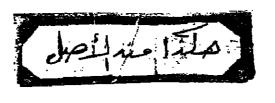
(a) The Company may at any turne grant one or more persons (each a "Company Designee") the right to exercise any or all Warrants which have not been exercised by the Warrantholder thereof on or before the Expiration Date. The Company will notify the Warrant Acen in writing of the designation of any Company Designeess. To exercise any such Warrants the Company Designee must, before the close of banking in London, England on March 8, 1996, fulfill the following conditions (the "Designee Exercise (i) pay or cause to be paid the Exercise Price relating to such Worrants in U.S.

The following shall be inserted at the end of Section 4.2:

immediately available funds to the Principal London Office or the Principal in Office for credit to the account specified in the Designee Exercise Notice (as slow), such payment to be made free of any foreign evoluting commissions. nce charges or other deductions. in deliver at a specified office of the Warrant Agent outside the United States and India a notice of exercise in respect thereof (the "Designee Exercise Notice") substantially in the form of Exhibit X attached hereto duly completed and agend by or on behalf of the Company Designer, and

applicable, the Warrant Agent shall first consider all Exercise resource and general such duly delivered Exercise Notices, prior to considering and giving effect to any duly delivered Designee Exercise Notices. (c) To the extent that, after determining the number (if any) of Warrants which shall

> amended or supplemented herein, none of the other terms and conditions of the Warrant Agreement are mismded to be amended and supplemented. All ed



DOLONE TOWNSHIP SHOW

Worden March 25 1996 # 2 44

RGrace

IN THE PARTY NAMED IN

A Age at the same as 3 (3/14/04/2)

The Part of the Pa

11 - A THE PARTY OF To read the second



**Les Echos** 

Menson's Mascusia

Marie Comment of the Comment of the

A CONTRACTOR OF THE PARTY OF TH

Services at the services of th

Water State of the State of the

Manager Comments of the Commen

Marchaever

mand of the second

William To The State of the Sta

and not to the second

on themes access

Appear of the man

Benedick at the second of

Alexander of the second

#### 100 E - 1 - 2 E

SMELL PLANTS

duction and commercial

金融学 いたしかさだ

See as the second

m expansion

and a tree of

Antonio de la serie de la seri

A Pleasant of Commission Market

ses forecast

grading the second of the

Search to the search

Same from 1 1992

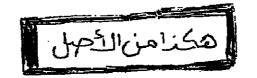
্ষ্টেকেই কামি শাল্প তেওঁকৈছে টুইফেডি কি কোলোলো তেওঁকৈছে

Control of the Contro

proceed

MARINE DE LA COMPANIE DE LA COMPANIE

W. Carrier Control of the Control of



#### INTERNATIONAL COMPANIES AND FINANCE

## WR Grace snubs Hercules merger approach

By Tony Jackson in New York

Shares in W.R. Grace, the embattled US chemicals company, jumped 11 per cent yesterday on news that it had rejected a merger approach from Hercules, a fellow US speciality chemicals producer. The rise of \$7% a share to \$76% valued Grace at \$7.4bn

Mr Thomas Gossage, chairman of Hercules, resigned from the Grace board on Monday, saying he had put a merger proposal to Grace's chairman, Mr Albert Costello, after being prompted by several large shareholders in both companies. Grace said its directors had voted against the offer. Mr

Costello said "it is not the right time, and Hercules is not the right company". Hercules would not comment on market speculation that it might launch a merger could provide "tremendous hostile bid, beyond saying it was con-sidering various options. Its market value of \$6.9bn is roughly the same as strategic overlaps, we would not have Grace's, and it has little debt after a recent series of disposals.

Hercules said its offer was not intended to block Grace's agreed merger of its medical division with Fresenius of Germany, announced a month ago. That deal also drew opposition, in the form of a rival \$3.8bn offer for the division from US healthcare group Bax-ter International, since withdrawn.

In a letter to Mr Costello, Mr Gossage paper, food, fibres and electronics.

The Hercules approach is the latest in said now that Grace was about to opportunities". Mr Costello denied there were synergies, saying: "If there were put Tom Gossage on the board in the

first place." profits of \$363m on sales of \$2.4bn. Grace's chemicals business - excluding healthcare - had operating profits of \$387m on sales of \$3.7bn. Grace's products range from plastic packaging to catalysts and sealants. Hercules

become a pure chemical company, a a series of corporate upheavals at Grace, which has been in turmoil since the ouster a year ago of its chief execu-

tive officer, Mr J.P. Bolduc. This led to a shareholder revolt, the resignation of most of the board and the appointment of Mr Costello, a former head of the US Last year, Hercules had operating chemicals company American Cyanamid.

Wall Street analysts suggested yesterday that a number of international chemicals groups besides Hercules could be interested in buying Grace, which is one of the biggest speciality makes chemicals for such industries as chemicals manufacturers in the world.

include the high proportion of

users who still use the old Dos

operating system and are not

expected to upgrade to Win-

dows or Windows 95 soon.

They also worry that Microsoft

might try to outflank Corel by

bringing out a graphics prod-

Mr Cowpland dismisses these

fears. He predicts that, with

proper marketing, software

users will better appreciate

WordPerfect's superior fea-

tures - for example, the one-

tenth point increments in its

font sizes, versus Microsoft's

will be more than a word pro-

cessing programme. Starting

with WordPerfect 7, extras are likely to be added to the tradi-

tional word processing pack-

age, such as a Netscape Inter-

net browser, and various

multimedia and graphics prod-

ucts. PerfectOffice may include

Novell's electronic publishing

and workgroup-sharing soft-

As for the danger of Micro-

soft entering the graphics mar-

by US antitrust scrutiny.

youthful energy. "There is great leverage [in the WordPer-fect deal]," Mr Astle says.

"They could make us all look

ware.

The new Corel WordPerfect

one-half point increments.

uct to take on CorelDraw.

#### **Cemex** plans big acquisition in Asia

By Daniel Dombey in Mexico City

Cemex, the Mexican company which is the fourth-largest cement concern in the world, plans a big acquisition in Asia within the next two years, according to Mr Gustavo Caballero, the company's chief financial officer.

Cemex already operates in Spain, Venezuela and the US, and saw improved operating margins in all three countries in 1995. According to results announced last week, 63 per cent of sales came from outside Mexico, allowing the com-pany to increase cash flow 14 per cent in peso terms to 6.3bn pesos (\$832m) despite the Mexican recession. "Most of our peers [in the

cement industry] work in mature markets. We are rather the opposite." Mr Caballero said. Cemex hoped to increase its presence in emerging markets, he added, to balance the higher volatility of such countries. "Asia would be a good balance for

our existing operations."

Cemex already has a sales presence in Asia, and has had an office in the region for some years. Sales in Asia made up 48 per cent of Cemex's Mexico operations' exports of 859m pesos in 1995. "Cemex always starts exporting cement, then it

opens distribution terminals and finally it makes an acquisition or starts an association," said Mr Roberto Carrillo, Latin American cement strategist at ING Barings in Mexico City.

Mr Caballero said a further ket, Mr Cowpland says that "they'd have to buy a product acquisition could be financed that we've already demolished by securitising a revenue in the market place". In any stream or with a part-equity case, he expects any foray by purchase. Though debt covenants prevent Cemex going Microsoft on to Corel's turf to be delayed at least six months beyond 55 per cent leverage. Mr Caballero said that the Even sceptical outsiders temlevel of 51.5 per cent reported per their concerns with respect for the end of 1995 left some for Corel's marketing flair and room for manoeuvre.

"Our debt situation was very good before the Mexican crisis," he said. "But once that took place, even though we are still sound, we are now near the limit, not to meet obliga-Bernard Simon | tions, but to grow."

#### **AMERICAS NEWS DIGEST**

## **Auction revival** boosts Sotheby's

Sotheby's Holdings, the auctioneer, financial services and real estate group, announced a continued recovery in revenues and earnings in 1995. It said auction sales were \$1.67bn, the highest since 1990, and the fourth-best in the group's history. Revenues for the year rose 20 per cent, from \$260m to \$313m, and net income by 61 per cent, from \$20.3m to \$32.6m. Earnings per share increased from 36 cents to 58 cents.

In the fourth quarter, which yielded the bulk of the group's profits, net income rose from \$17.8m to \$27.5m, and earnings per share from 31 cents to 48 cents. The rise in auction sales was led by a near doubling in sales of impressionist and modern art - to \$176m - and a 38 per cent gain in sales of jewellery to \$70m. Three large sales of private collections

Revenues from auctions fell as a percentage of auction sales, from 17.6 to 17.1 per cent over the year. Sotheby's said this reflected a change in mix to higher average lot values, and the competitive pricing pressures in the market.

The new schedule of seller's commissions, announced last September, has yet to have a significant effect. Analysts said this should begin to have an impact in the first half of the current year. However, they said the lack of large private collection sales could make comparisons with last year difficult. Sotheby's is due to auction \$5m worth of art and objects owned by Mrs Jacqueline Kennedy Onassis in April. Maggie Urru, New York

#### Tortilla switch lifts Maseca

Grupo Industrial Maseca, the food company which dominates Mexico's cornflour market, announced a 5.3 per cent rise in 1995 sales to 3.4bn pesos (\$449m). Volumes were up 17 per cent on the year before. The company's strong cash position of 925m pesos at the end of 1995 helped it mark up a 34 per cent

increase in net profits to 464m pesos for the year.

Maseca has benefited from the country's continuing switch to tortillas made from cornflour rather than ground maize. Maseca claims 70 per cent of the cornflour market, which in turn accounts for 44 per cent of all tortillas.

"Tortillas are far more important than bread in Europe or rice in Asia," said Mr Javier Velez, head of corporate finance. The demand does not fluctuate with the economic situation." Despite a fall in real prices, operating profits increased 23 per cent to 557m pesos.

The company said it had reduced expenditure on advertising and cut administrative costs, while the opening of three new plants and modernisation of Mexico City operations helped reduce freight expenses.

Daniel Dombey, Mexico City

#### Operating profit falls at ICA

Empresas ICA, Mexico's largest construction company. reported a fall in operating income to 246m pesos (\$32.5m) for the fourth quarter last year, compared with 454m pesos for the same period a year before. Net loss for the quarter, in which interest rates rose, stood at 130m pesos compared with a loss of 624m pesos in the quarter last year. Daniel Dombey

#### Loblaw plans stock split in May

Loblaw, Canada's biggest food distributor, which is owned by the Weston family, plans a three-for-one stock split in mid-May, bringing total shares outstanding to 240m and broadening the market in the company's shares. Loblaw is also raising C\$300m (US\$219m) with a medium term note issue to fund modernisation and expansion. The market values Loblaw at nearly C\$3bn. The company earned C\$146.7m in 1995, 17 per cent up on 1994. Robert Gibbens, Montreal

## Corel confident of a perfect repackaging

enior executives of Corel, the Canadian software maker, were at Word-Perfect's offices in Orem, Utah, last Friday for a burst of corporate cheerleading to welcome the word-processing software group into the Corel fold. Corel, which bought Wordmurt exclusion

Perfect in January from Novell, the networking software specialist, is eager to show WordPerfect's 600 employees, as well as sceptical outsiders. that the deal has the makings of an exciting and rewarding partnership.

Over the next few weeks, each WordPerfect employee will be linked to head office in Ottawa by Corel's new video communication system, which includes a small camera mounted on every PC monitor.

Nor is Corel is wasting any time applying its vaunted mar-keting skills. A renamed and repackaged Corel WordPerfect is to be launched within the next few weeks. "It's going to be supported by megabucks of advertising," promises Mr Michael Cowpland, Corel's founder and chief executive. More ambitious co-operative ventures are in store later in Corel's efforts underscore

the high stakes riding on its new acquisition, both for WordPerfect and itself. The Canadian company needs WordPerfect to help broaden its base. Its flagship product, the popular CorelDraw graphics software, made up 74 per cent of sales, totalling US\$196.4m, in the fiscal year to November 30.

Notice convening the

Opening.



Words and pictures: Corel is aiming to broaden its product base

six years since it was launched. "The only things left for them were acquisitions or new products," says Mr Tom Astle, analyst at Midland Walwyn in Toronto.

For WordPerfect, the arrival of a new parent offers hope of rejuvenation. WordPerfect remains one of the most popular word-processing programs. but has steadily lost ground in recent years, notably to Microsoft Word. Its business version, PerfectOffice, has market share of only about 5 per cent, versus more than 90 per cent for Microsoft Office.

Novell bought WordPerfect two years ago for \$1.4bn, but received only \$116m - all in shares - from Corel. This made it Corel's biggest shareholder, with a 16 per cent fully-diluted sion, known as WordPerfect 7, Corel has left few stones is due for launch in April, six unturned in perfecting and months behind the comparable marketing CorelDraw in the Microsoft Word product.

Philips Electronics N.V.

to be held on Monday, March 25, 1996, at 2 p.m., in the BEURS-GEBOUW EINDHOVEN, LARDINOISSTRAAT 8 (at the north side of the

ORDINARY GENERAL MEETING OF SHAREHOLDERS

Financial statements and Annual Report 1995.

- Adoption of the 1995 financial statements.

3. Composition of the Board of Management.

restrict or exclude the pre-emption right.

4. Composition of the Supervisory Board.

to acquire shares in the Company.

N.V., Herengracht 595, in Amsterdam.

Hill Samuel Bank Limited, 10 Fleet Place, London.

ABN AMRO Bank N.V., Herengracht 595, Amsterdam.

7. Any other business.

8. Closing.

Company:

in the United Kingdom:

Endhoven, March 6, 1996

Report on the activities of the Philips group in 1995.

Report of the Supervisory Board on the financial statements for 1995.

5. Designation of the Board of Management as the body authorised for a period of 18 months to issue shares or rights to shares and to

6. Authorisation of the Board of Management for a period of 18 months

The complete agenda and the Annual Report Philips 1995 have been deposited for inspection and are available free of charge at the office of the

Company (Philips Finance Securities, Building VOp, P.O. Box 218, 5600 MD

trisofar as this is laid down in the Articles of Association, the proposals for

nominations, together with information relating to the persons proposed,

have been deposited for inspection and are available free of charge at the

office of the Company (Philips Finance Securities) and at ABN AMRO Bank

Holders of shares Phillips Electronics to bearer (in CF form) listed on the

London Stock Exchange who wish to attend the meeting, either in person or by proxy, should order their own depositary bank not later than 12.00 hours at

noon on March 21, 1996 to block such certificates in exchange for a receipt

Depositary agents must notify the Company not later than March 21, 1996.

Banks appointed as coordinating agents between depositaries and the

The Board of Management

from their bank that will entitle the holder to admittance to the meeting.

Eindhoven), and at the head offices of the banks listed below.

central railway station), EINDHOVEN.

The items on the agenda are as follows:

Adoption of dividend proposal.

Corel appears to be better placed than Novell to revive WordPerfect. "There's a much better culture fit with the folks at Corel than there ever was at Novell," says one WordPerfect employee. While Novell's customers mainly comprise staid information technology specialists and engineers, Corel is driven by the pizazz of the retail market.

r Cowpland, a fasttalking Englishman with a collegiate management style, first came to prominence the 1970s as cofounder of Mitel, the telephone equipment maker. His lifestyle is epitomised by a convertible Porsche with the registration COREL Advertising outlay made up

28 per cent of Corel's 1995 sales. While revenues rose 19.5 per cent, advertising spend shot up 72.8 per cent to \$55.1m. Mr Cowpland says this year's advertising budget will top \$100m. The company spends heavily on sports sponsorship. Concern about Corel's pros-

1995 Source: FT Extel pects has grown recently. Disappointing shipments of a new CorelDraw version designed for Windows 95 pushed the company to a \$1m loss in the final quarter of fiscal 1995, compared with earnings of \$11.2m a year earlier. The WordPerfect purchase has failed to revive Corel's share

price, which has slipped to C\$14.25 on the Toronto stock

Share price relative to the Toronto SE 300 index

exchange, from last year's peak of C\$26.62. WordPerfect and Perfect-Office sales were US\$400m in Novell's latest fiscal year, ended October 31. But firstquarter revenues this year were only about \$50m. "If they get \$150m from WordPerfect this year, they'll be lucky, says one analyst, who has told clients to steer clear of Corel.

Stronger results are likely over the next few months. But analysts caution against reading too much into the performance. Earnings are likely to be buoyed as the new versions of WordPerfect and Perfect-Office are pushed into the distribution pipeline.

Rectification ABN•AMRO

ABN AMRO BANK N.V.

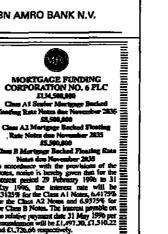
US Dollars 150,000,000 Subordinated Floating Rate Notes

1992 due 2002

in accordance with the terms and conditions of the Notes, notice is hereby given that for the interest, period from February 26, 1996 to August 27, 1996 the Rate of Interest has been fixed at 5.25 per cent, and that the interest payable on the relevant Interest Payment Date, August 27, 1996 against Coupon No. 8 in respect of USS 5,000 nominal of the Notes will be US\$ 133.44 and in respect of US\$ 100,000 nominal of the

ABN AMRO BANK N.V.

Notes will be US\$ 2,668.75.



Correction Notice BankAmerica Corporation **BankAmerica** For the period from February 26. 1996 to May 28, 1996 the Notes will carry an inverest rate of 5.6875% per annum with an interest amount of US \$726.74 per US \$50,000 principal amount of Notes payable on May 28, 1996. Union Bapit of Switzerland London Branch Agent Emik

The Top **Opportunities** Section For senior management positions. For information call: -Will Thomas +44 0171 873 3779

US \$500,000,000

Floating Rate Notes

Due February 1997



What's cooking in your portfolio?

Ask most banks how you should invest to preserve your assets and you'll likely hear that a balanced diet is best for your long-term financial health.

Good advice. But sound diversification requires much more than a little of this, more of that, and a taste of something else. That's where the personalized private banking philosophy of Bank Julius Baer can help.

Instead of offering just pre-packaged investment recipes, your personal Baer advisor will make an in-depth appraisal of your current situation and goals, and then select and blend the resources of the Julius Baer Group into a creatively structured solution that positions you for long-term, after-tax performance.

At Bank Julius Baer, wealth management is our strength. Personalized service is our commitment. Just call

Zurich:

Joseph A. Belle (+41-1) 228 55 59 Geneva: (Société Bancaire Julius Baer) Candace Wehbe (+41-22) 317 64 18

London:

Julian Yorke (+44-171) 623 42 11

BANK JULIUS BAER

The Fine Art of Swiss Private Banking

Group Presence: Zurich Geneva London New York Frankfurt Lugano Monaco Guernsey Montreal Grand Cayman Palm Beach Los Angeles San Francisco Mexico Hong Kong

Regulated by the SFA

i ietnam Note: No

囊 医上颌上下侧切除

and the second

dy character To Tax

Section of the sectio

Section of the Sectio

ST LIMITED HATES

COUNTS ;v . :5 → 2.75 - 1 - -

1.6 No. of Street, 10

## Emap close to £145m French magazines deal

By Christopher Price

Emap, the publishing and media group, is close to purchasing three leading French consumer magazines from Compagnie Luxembourgeoise de

Telediffusion for £145m (\$223.3m). The deal would provide the highlyacquisitive Emap with some of France's top-selling titles, such as Top

Sante, a women's monthly magazine with a circulation of 700,000, and Tele Star, a television listing magazine with weekly sales of 2m. Annual revenues of the business last year were

Emap is understood to have beaten off stiff competition from Springer Verlach of Germany to secure the deal which will increase by more than

French operations and raise its market share of the country's consumer magazine market from 11 per cent to

Emap entered France in 1990 but made its biggest move in June 1994, spending FFr710m in the purchase of on Editions Mondiales, a Paris-based publisher. Three other smaller acqui-

sitions, totalling FFr205m, accompan- cash flow taken into account, analysts ied that deal, including France's big- are forecasting borrowings of £338m gest selling motoring magazine, L'Auto Journal.

It is thought that the UK group will pay for its latest purchase from existing resources. Borrowings stood at £224m at the interim stage in November, a rise of 74 per cent over the previous period. With the group's

should the deal go through, against shareholders' funds of £152m in the year to March 31, 1995.

As well as Tele Star and Top Sante, the latest acquisition would give Emap control of Tele Star Jeux. a puzzle magazine which has a monthly circulation of 215,000.

## More wagons for Eurotunnel

(4.86) (3.1\psi) (116.1) (1.71) (3.02) (20.9) (39.7) (0.614) (3.3\psi) (0.624) (0.624) (0.81\psi) (33.8) (4.95) (3.9\psi) (3.9\psi) (3.9\psi) (3.9\psi) (3.9\psi) (3.9\psi)

(0.278)

(1.39)

De Beers

EXTRACTS FROM THE AUDITED RESULTS FOR THE YEAR ENDED 31 DECEMBER 1995.

Attributable to the De Beers/Centenary linked units

Equity earnings up 18% in Dollars (21% in Rand)

Dividends up 10% in Dollars (13% in Rand)

1994

629

196

54

700

133

100

833

34.1c

50.3c

84.4c

Cornes of the previsional annual frameial statements and dividend notices will be posted to linked unit holders on or about 7 March 1996 and will also be available from the following offices:

Switzerland

De Beers Centenary AG

Langensandstrasse 27

CH-6000 Lucerne 14

US\$ millions

Attributable earnings up 11% in Dollars (14% in Rand)

Rand millions

29 922 32 859

3 565 3 713

46 820 44 630

15 865: 15 590c

1995

384

4 038

37 28L

16 048

17 058

294

168

37 281

1994

346

4 571

34 839

14 158

15 753

232

931

34 839

0.272

Earnings shown base. Dividends shown net except \*gross. Figures in brackets are for corresponding period. After exceptional charge. \*VAfter exceptional charge. \*VAfter exceptional charge. \*VAfter exceptional charge. \*Alter exceptional ch

Channel tunnel car and freight "shuttle" services, yesterday placed an order for 72 additional freight shuttle wagons costing FFr106m from the French manufacturer, Arbel, for delivery in March-April 1998, writes Charles Batchelor.

en Leisure

Scottish TV .

Singapore Para Sotheby's 🌣 🗕

9 mths to Jan 31 Yr to Dec 31

. Yr to Dec 31

6 miths to Dec 31 Yr to Dec 31 \* Yr to Dec 31 Yr to Dec 37

6 mits to Dec 31 Yr to Dec 31 Yr to Dec 31 & Yr to Dec 31

. Yr to Dec 31

Yr to Dec 31 Yr to Dec 31

. 6 mittes to Dec 30

De Beers Consolidated

Mines Limited

Uncoperated in the Republic of South Africa)

Rand millions

2 215 2 748

1995

3 021

[994

50.7

U

470

3.467

1075

2 030

, 2,

(8)

DIVIDENDS

transfer secretaries.

36 Stockdale Street

Kimberley

South Amen

De Beers Consolidated Mines Limited

COMMENT

87.3 8.2 24.2 45.6 1,911 36.69 52.6 410.5 195.5 1,199 8.58 19.8

100.5

1.03 312.9

42.8 510.4

..... Yr to Dec 31 38.11 (32.75 )

PRO FORMA COMBINED INCOME STATEMENT

Piamond account .....

Investment income .....

Interest income .....

Net income before taxation .....

Attributable earnings .....

Number of linked taxes in usue (millions) . . . .

594e Excluding retained earnings of associates ...

938c Including retained earnings of associates ...

154.1c Per Centenary depositary receipt .......

339.1c | Per De Beers/Centenary linked unit .....

R3 53 R3.62 US Pollar/Rand average exchange rates . . . R3.62 R3.53

Both the De Beer- Consolidated final dividend (No. 152) of 132 SA cents per

linked deferred share and the Centenary Depositary dividend distribution (No. 12) of

3) 2 US cons per depositary receipt have been declared payable on Wednesday, 22 May

1996 to linked unit holders registered at the close of business on Friday, 29 March 1996.

The registers will be closed from 30 March to 6 April 1996. The full conditions relating to

the dividends may be respected at the offices mentioned below as well as the offices of the

Sales of rough diamonds by the Central Selling Organisation (CSO) in 1995 at

US\$4.551 million (R16.505 million) were 7 per cent higher than the previous year's sales

of US\$4,250 million (R15,007 million). Sales in the second half of the year at

US\$1,001 million were 10 per cent higher than for the same period in 1994.

Earnings per linked unit:

(32.21 ) (44 ) (294.5 ) (74.1 ) (882.7 ) (6.8 ) (17.4 ) (28.2 ) (4.81 ) (388.9 ) (247.2 ) (118.3 )

(0.965 ) (259.7 ) (40.8 ) (496.5 ) (21.4 )

4.05 35.5 31.1 ♣ 43.2 0.782 4.23 1.3 0.893♥

a further 144 wagons for delivery in January and December 1999 and announced plans to order up to nine more locomotives and six more club cars for carrying truck drivers. The additional shuttle wagons will boost Eurotunnel's

current capacity of 3,900 trucks a day by 7 per cent. It said it had sufficient capacity to meet foreseeable demand although traffic figures for February published yesterday showed further strong growth. The new wagons will be of a

simpler design than the origi-

6.75

Italy, and will cost just one third of the price.

Arbel makes automotive parts and freight railway rolling stock. The wagons will be built Arbel Fauvet Rail at its factory in Douai, northern

## M&S makes Canadian sale

Consumer Industries Editor

Marks and Spencer is to sell its chain of 85 D'Allaird's stores in Canada, marking a further attempt by the UK retailer to find a profitable strategy in the

The purchaser is Comark, one of the largest speciality retailers in Canada with more than 500 stores under names such as Bootlegger, Irene Hill and Ricki's. Comark is owned by the publicity-shy Brennink-

meyer family.
Disposal of the D'Allaird's chain, acquired in the 1970s, will cost M&S about £15m, the group said, of which £10m, will be goodwill previously written

M&S has spent more than 20 years trying to make various formats work in Canada, the first foreign country it tried to break into. Its initial attempt to rationalise the operations came in 1992 when it sold the

Peoples Stores chain. "It would have been difficult to get it more wrong," Sir Richard Greenbury, M&S's chairman, said of Canada last year when he was unveiling a further expansion of its successful

De Beers

Centenary AG

US\$ millions

8 432

1 288

1 004

4 046

4 4 3 9

66

262

1995

9 003

PRO FORMA COMBINED BALANCE SHEET

Linked unit holders' interests .....

interests .....

Long- and medium-term liabilities ...... 1 106

Stores and materials .....

Net current assets .....

Market value/directors' valuation

of all investments including trade

Not asset value per De Beers/Contenary

R3.55 R3.65 US Dollar/Rand year end exchange rates . R3.65 R3.55

Worldwide retail sales of diamond jewellery are estimated to have increased in 1995 by

Mining companies in the De Beers group have historically used the "last in first out"

method to value diamond stocks. In compliance with a revised statement of generally

accepted accounting practice the "first in first out" method has now been adopted. The

effect of this has been to increase diamond stocks and attributable earnings in the current

year by US\$18 million or R65 million and in the prior year, which has been restated, by

Combined long- and medium-term liabilities at the end of 1995 were US\$1106 million,

US\$182 million lower than 1994, while net current assets decreased by US\$216 million

The rough diamond market his begun 1996 in a confident mood. The price changes in

1995, the absence of outside rough, the retail market situation and the recently announced

arrangements between the CSO and the Russian government have all contributed to a

Angle American Corporation

London EC1N 6QP England

of South Africa Limited

19 Charterhouse Street

to US\$46 million, showing an overall decrease of US\$34 million.

communication improvement in sentiment.

Preferred and outside shareholders'

Represented by:

The formula that works best for M&S is to concentrate on stores with the same name and essentially the same lay-out and range of goods with which it has flourished in the UK. This will now be the sole thrust of its Canadian operations.

M&S encountered similar

problems in the US as Canada, where it spent heavily to buy the Brooks Brothers clothing chain in 1987 and to rebuild it before finally returning it to profit

Its purchase of the Kines supermarket chain in New Jersey was successful more quickly.

Continental Europe appears to be one of the overseas areas with the highest interest to M&S. It recently secured the lease on its first German store and plans others in the Ruhr.

The real test in each country, however, is MS's ability to generate sufficient momentum to switch from high-priced niche retailing to the mass market

It did that in France in 1994 cutting prices by some 15 per cent. Profits dipped in the short term, but the group is now exploiting the lower pric-ing to build volume.

### **Future of** Trafalgar portfolio uncertain

By Simon London, Property Correspondent

Uncertainty surrounds the future of Trafalgar House's £200m (\$308m) commercial property portfolio following Monday's agreed £904m bid for the company by Kvaerner. The Norwegian company has indicated that it is likely to sell the portfolio, cutting the

remaining links with Trafalgar's origins as a property company in the 1960s. However, it is not clear whether the portfolio will be broken up or sold in one block. Property agents said the mix of investment and devel-

opment sites was unlikely to appeal to a single investor. Although Trafalgar's prop-erty interests have dwindled, the company owns strategic sites including the Baltic Exchange in the City of London, where it has planning permission for a 350,000 sq ft

office development. The site is one of the few City development sites capable of accommodating a very large building of the type favoured by investment banks. If a tenant can be found there would be strong competition from UK and overseas investment insti-

Other large development sites include Paddington Basin, where there is potential for a large office complex close to the central London terminal of the Heathrow Express rail link, and at Chiswick, west London.

The 33-acre Chiswick site, with planning permission for an office park, is held in a joint venture with British Land. They are already looking for a buyer.

Most of Trafalgar's investment properties are held in a joint venture formed in 1990 with Chartwell Land, the property arm of Kingfisher, the retail group.
Outside Marston House,

Trafalgar owns a handful of larger investment properties such as the UK headquarters in Surrey of Sony, the Japanese electronics group.

The Sony building is relatively new and generates annual rental income of about £4m. The larger buildings would attract strong bidding from UK investment institutions if they were for sale. • Two Kvaerner shareholders

have requested an extraordi-nary meeting to vote on the group's acquisition of Trafalgar House, writes Christopher Brown-Humes in Stockholm. Under Norwegian law, pub-

lic companies have to call an EGM if shareholders accounting for 10 per cent of their capital demand one. Kvaerner said the bid was "absolutely

#### LEX COMMENT

## UK housing

The UK's Labour party may have suddenly become the self-proclaimed "party of pri-vate housing", but Mr Tony Annual % change Blair, its leader, seems short of new ideas to demonstrate this commitment. He made a blistering attack on the government's cuts in mortgage tax relief to homeowners yesterday, without suggest-ing he would reverse them. Meanwhile, his proposals for more flexible mortgages and loans for homeowners with negative equity - where the property is worth less than the loan – are hardly revolu-

tionary. These are already

offered by a raft of lenders. The only controversial element of his keynote speech was the proposal that mortgage lenders like life assurance companies, become legally required to give "best advice"

Certainly, the draft code of lending practice by the Council of Mortgage Lenders does not go far enough - it does not provide automatic disclosure of commission or penalties for bad advice. But Mr Blair would do better to force the council to toughen the code rather than resort to legislation.

At least Mr Blair's statements will provide some comfort for the two-thirds of UK families who own their own homes. But property owners would gain greater benefit if the party regained its tag as the party of inflation, thereby fuelling a recovery in the housing market. After all, lower interest rates and tax cuts should help raise housing prices by some 2 per cent this year, but that hardly scratches the surface of recent

### DIGEST BET chief could receive £5m

Mr John Clark, chief executive of BET, will receive more than £5m (\$7.7m) if the £1.9bn hostile bid for the business services group by Rentokil is successful.

The figure, which includes a payment of about £3m from a controversial medium-term incentive scheme, provoked outrage from some BET institutional investors. One institution described the pay-off, one of the biggest to a

director in UK corporate history, as a "disgrace".

The shareholders were angry that the money in the scheme is paid to directors if there is a successful takeover regardless of whether the relevant performance criteria have been met. According to BET's 1995 annual report, a sum of £3.35m has been set aside for the executive directors who qualify for the scheme – Mr Clark and Mr Keith Payne, finance director. It is understood that Mr Clark qualifies for about £3m of that.

Mr Clark, who was paid a total of £1.1m last year including bonuses and pension payments, also stands to make a profit of £1.07m on his share options at the 200% Rentokil cash and share offer. He is also understood to be on a three-year rolling contract with the group, with an annual salary of about

The incentive scheme was introduced in 1993 and cover about 50 senior managers at the group. Some institutional shareholders supported Mr Clark. One said: "You have to be flexible. The company was nearly bust when he took over and not many people were queueing up to

#### Geoff Dyer and William Lewis Welsh Water A\$30m investment

Welsh Water has made its first significant infrastructure investment overseas, paying A\$30m for a 6.6 per cent stake in an A\$1.78bn private road scheme in Melbourne, Australia.

The project is a 22km eight-lane highway through Melbourne linking four of the city's arterial routes in order to alleviate traffic congestion. The scheme was identified in 1990 by Acer, Welsh Water's engineering and environmental business, which will do design work for the project. The toll highway will be run by Transroute, the French road operator. Welsh Water and Transroute are also in a

consortium with John Laing and Tarmac to tender for private inance road projects in the UK. Welsh Water said that investors in the Melbourne project would start getting a return soon after the start of the

construction phase.
Other investors include the Australian Industrial Development Corporation and Hastings Funds Management which backed this week's successful £1.2bn bid by PowerGen to buy the Yallourn power station in Victoria. David Wighton

#### S&P sees cuts in life offices

Several thousand jobs within the UK life assurance sector will go over the coming months, as companies continue to cut spending on staff, property and computer systems, according to Standard & Poor's, the credit rating agency.

In a review of the sector, S&P said it expected life companies to make further significant cuts in their costs this year as they reduced their charges in order to gain market share. It expects "further substantial reductions" in the number of people selling life assurance.

The review follows moves in which S&P downgraded its ratings for companies including Clerical Medical, Scottish Provident and Norwich Union. While it is optimistic about the sector's prospects in the

longer-term, it expects new business levels to remain subdued both this year and next.

Of the 31 life offices for which it gives ratings, S&P rates one - Guardian Assurance - as having "weak" financial strength, and four - Crown Life, Friends' Provident, Royal Life, and Sun Alliance – as having "adequate" financial strength. The other 26 have higher ratings.

Despite the uncertain forecast for the sector, S&P believes the pace at which life companies withdraw from the overcrowded UK market will be slower than some have

#### Gehe's offer document today Gehe, the German drugs wholesaler that took over AAH last year, today publishes the offer document in its £650m bid for

Lloyds Chemists, the pharmacy chain.

A £821m bid for Lloyds from Unichem, the UK drugs wholesaler, lapsed last week when it was referred to the

Monopolies and Mergers Commission. The UK authorities have asked the European Commission to allow them to examine Gehe's offer of 500p a share cash, which would also lapse if referred to the MMC. The Reuter news agency yesterday quoted an official saying that there seemed to be a good case for referral, and adding that a

Shares in Lloyds put on 5p to 463p yesterday. Both UniChem and Gehe already control about 30 per cent of the UK drugs wholesale market, which would increase to about 34 per cent on the acquisition of Lloyds.

preliminary decision would probably be taken later this week

There could also be concerns over vertical integration of wholesaling with a powerful retail presence. UniChem owns some 400 pharmacies and Gehe about 300 after its takeover of AAH. Combined with Lloyds's 928 pharmacies, either one would create a substantial retail chain. The MMC has until June 28 to make its report on the

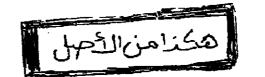
David Blackwell

Unichem bid.

Reers calms Aus

mills sla

L CHARGO



#### COMMODITIES AND AGRICULTURE

## North American wood | Mining industry turns its back on fund raising pulp mills slash prices

ESTATE STANSFER

PME 21 69 81 81 81

100 mm

William or Table

Posts - I Tag

The second

Property of the second

f could

ET a come a time.

Spring and the second

\$ 32 more more to the

Brazilia de Presi

TOTAL CONTRACT

१४६८म् । १८ ४ त<u>न्</u> इस्तिकार १८४५ - १९५४ व

Spritch III och <u>som</u> Barrer och Tuges Til

September 1997 (1997)

Im investmen

(2015年) (2015年) (2015年) (2015年) (3015年)

200 M

Section Control of the Section Control of the

A Things of the state of the st

ent today

The second of the second

fe offices

ipi e 🗥 .

and the same of

केल आहे हैं। उन्हें और प्राप्तिक

医脱氧化物 人名

\*± '.

Francisco (

Figure 1

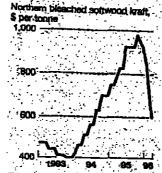
MMENT

North American wood pulp mills have slashed prices amid a wave of recrimination among producers about the pulp market's recent decline.

Weyerhaeuser, one of the biggest producers, started the process at the end of last week by cutting the list price of northern bleached softwood kraft (NBSK), the industry's benchmark product, by 17 per cent to US\$800 a tonne.

The latest reduction, which comes a month after a similar cut, brings NBSK prices to 40 per cent below the record \$1,000 which producers tried unsuccessfully to impose on the market last October.

Weyerhaeuser's move was sparked by a sudden drop in spot prices in response to signs of unexpectedly weak demand for paper in many parts of the world. Several North American newsprint producers have abandoned a planned 7 per cent price increase that was due to take effect on April 1. Inventories are bulging



along the entire pulp and paper supply chain. According to the Canadian Pulp and Paper Association Canadian pulp mill inventories climbed to 47 days' supply, from 40 days' in December and 17 days' at the peak last June.

Many mills have already announced temporary shutdowns in an effort to bring supply into line with demand. Another wave of closures is expected in coming weeks, with prices now close to some

mills' cash production costs. Mr David Pinneault, analyst at Resource Information Systems, a US consultancy, predicted that the NBSK price will bottom at about \$500 this spring. He noted that the steep drop in prices was likely to encourage more mill shut-

bring down inventories. Pulp producers' battle for market share has been intensified by the emergence last year of Indonesia, previously a net importer, as a substantial, low-

downs, which in turn should

"Some players decided to compete against the Indones-ians on their own terms," said one large North American pro-ducer. "What started as price erosion became a price col-lapse." Fingers have been pointed at Georgia-Pacific, the US forest products group.

Producers such as Weyerhaeuser have also stirred up controversy in the industry by trying to support the market at specific levels. "I don't agree with holding a price in a falling market," one Canadian pulp marketing executive said.

Mining companies switched their attention last year from raising new funds and turned to mergers, acquisitions and buying back their shares. The total of new equity and convertibles raised by the mining industry in 1995 was US\$4.492bn, 56 per cent down

> Mining Group.
> In 1994 the industry went on e feeding frenzy and gave investors a severe hout of indigestion. Because of this some proposed fund-raising operations were withdrawn

last year. However 1995 saw a surge in mergers and acquisitions in the mining sector, totalling \$7.65bn. Of this, \$2.6bn represented the removal of mining equity from the world's stock markets. In addition, \$714m was removed from the North American market by stock buy-back programmes at companies such as Inco of Canada. the world's biggest nickel producer, Phelps Dodge, the biggest US copper producer, and Alcoa of the US, the world's

from the record \$10.123bn set

in 1994, according to the

annual analysis by Mr Nick Hatch at the Flemings Global

largest aluminium group.

Mr Hatch says: "The result is that net mining equity issued to the market in 1995 was only



Last year J. Burgess Winter (left), president and CEO of Magma, saw his company acquired by BHP, headed by John Prescott

\$1.178bn or 0.5 per cent of the year-end industry capitalisa-

But 1996 has started with a boom, thanks to the unexpected rise in the gold price in January and February. Mr Hatch calculates that the min. ing industry has already raised \$1.073bn this year - all but \$2m of it for gold companies.

The proposed \$2.3bn bid for Alumax by Kaiser, another US aluminium group, has been withdrawn, but the \$2.385bn agreed offer for Diamond Fields Resources, which owns the huge Voisey's Bay nickel deposit in Labrador, by Falconbridge, the Canadian nickel group, is still on the table.



Kenneth Gooding reviews last year's spate of mergers, acquisitions and share buy-backs

Some analysts expect a rival offer before long. "1996 is going to be a boom year for mining corporate financiers," Mr Hatch prom-

In his analysis of last year's fund raising, he recalls the "big three deals". One was Lihir Gold, where the partners in this Papua New Guinea project (including RTZ-CRA and Niugini Mining) raised US\$459m from the sale of shares in the new company to Australian investors. The other big deals were the French government's receipt of \$365m from the privatisation of Pechiney, Europe's biggest alumin-

ium group, and Trelleborg of

Sweden's sale of its 24 per cent shareholding in the Falconbridge nickel group to institutional investors for \$358m. In 1994 mining new issues totalled 5 per cent of the year-

last year the total was only 1.8 per cent On the mergers and acquisitions front the biggest cash transaction last year was when BHP, the largest Australian group, acquired Magma Copper of the US. This was completed

end market capitalisation, but

in January but by the end of last year \$1.39bn had been ten-The next three largest deals also had an Australian flavour: North joined in partnership with Rio Algom of Canada to pay \$375m for International Musto and its 50 per cent share

of the Bajo de la Alumbrera

copper-gold project in Argen-

tina; Goldfields paid \$180m for Pancontinental, another Australian company; and Homestake Mining of the US bought the minority interest in its Australian subsidiary for

As for new equity and con-

vertibles, Mr Hatch points out

that North America was the dominant market, representing 45.3 per cent of the total raised. By commodity, precious metals made up 42.5 per cent of the funds raised, compared with 33.1 per cent in 1994 and 64 per cent in 1993. Base metals, which made up 24.8 per cent in 1993 and 36.1 per cent in 1994, moved up to 38.35 per cent of the total last year. Coal companies raised \$970m in 1994 (there were two big financings, by RJB Mining in the UK and Zeigler Coal in the US) but

Big min	ing and i	netals deals of 1995	
Company	country	deal acquired Magina Copper (US)	velue US\$m 1.390
Lihir Gold 'North/	Australia Australia and Canada	sold shares to public accurred international	459 375
Pechiney Fatoonbridge Goldfields	France Carrada Australia	privatisation Trallaborg sold 24% acquired Pancontinental	365 358 180
Homestake	US	acquired Parkontinental acquired minority of Homestake Australia	162

## De Beers calms Australian row

By Kenneth Gooding, Mining Correspondent

De Beers yesterday indicated that it had gone a long way towards patching up its dispute with the Australians who were threatening to leave the international cartel of rough (or uncut) diamond producers organised by the South African

Mr Gary Raife, managing director of De Beers' Central Organisation, suggested agreement between the cartel and the Australians would bring price stability to the market for smaller rough diamonds, which are worth US\$4bn a year and account for about 40 per cent of the total diamond market.

The news comes only days after the CSO reached agreement with Russia, another big producer that recently seemed intent on quitting the cartel. In volume terms, Australia's

Argyle mine is the world's biggest rough diamond producer but most of its output is of smaller and cheaper stones. Ashton Mining, one of the owners of Argyle, was incensed by price cuts imposed by the CSO last August which reduced the amount paid for Argyle diamonds by an average of 10 per

Mr John Robertson, Ashton's chief executive, said his company and CRA, its partner in Argyle, might not sign a new contract with the CSO when the current one ended in June.

Precious Metals continued

■ GOLD COMEX (180 Troy oz.; \$/troy oz.)

Yesterday, however, Mr Raife said that negotiations for a new contract with the Australians started last week in South Africa and that there had been two days of "comprehensive and constructive talks. My feeling was that both sides want to agree a new con-

He suggested it was in Argyle's interest for the CSO to keep a tight grip on the market for smaller diamonds, which are usually cut in India. Mr Ralfe said indications that a deal would be struck with Russia had already helped stabilise prices of small diamonds. However stocks of both rough and polished stones - and bank debts - remained high in

GRAINS AND OIL SEEDS

WHEAT LCE (E per tonne)

### Gold project wins approval

MI COCOA LCE (E/tonne)

By Kenneth Gooding

After an arduous permitting process lasting 41 months and some acrimonious litigation, the US\$319m Pipeline project in Crescent Valley, Nevada destined to become one of North America's biggest gold producers - yesterday received the go-shead.

Placer Dome of Canada, the 60 per cent joint owner and operator, said the Nevada Bureau of Land Management had approved the plans, and construction would start immediately. The open pit Pipeline mine is expected to start gold production in the middle of

next year at an annual rate of 310,000 troy ounces. Reserves of 4.3m ounces will last 12 years. Placer's partner in the project is RTZ-CRA, the Anglo-Australian mining group,

which has 40 per cent. Last year Placer paid \$30m to settle a legal dispute with Gold Fields Mining, part of Hanson, the Anglo-American conglomerate. Gold Fields claimed that Placer had not fully disclosed the nature of the Pipeline discovery when it secured the option contract to buy Gold Fields' mining claims in the area, near the existing Cortez gold mine that has been operating since 1968.

MARKET REPORT

### Grain futures continue to slide

Grain futures at the Chicago Board of Trade continued to slip yesterday in fast trading after Monday's sell-off, but traders said sales were largely technical and not in response to a stronger outlook for grain. Mr Jerry Gidel, agricultural analyst at Dean Witter Revnolds in Chicago, said the drop was confusing: "There is nothing in any forecast which suggests any change in moisture

levels in the main winter wheat growing region." A sharp drop in wheat

MEAT AND LIVESTOCK

ILLIVE CATTLE CME (40,000lbs; cents/lbs

63.400 +0.675 63.575 62.325

futures pushed other agriculturals down, with March wheat falling 71/2 cents to \$5.05 a bushel at mid session. Traders said hedge funds were unwinding speculative long positions

tural complex. "The funds have been very active in these markets and now they're taking profits. The psychological factor of the markets falling is prompting more selling," said one trader.

and selling out of the agricul-

The March corn futures contract was 6% cents lower at \$3.82 a bushel. Selling pressure

was also spreading into sova-

**JOTTER PAD** 

beans, which Mr Gidel said looked most vulnerable in the short term. "We could be looking at a lacklustre scenario for sovabeans in the next few weeks, but there is still a lot of uncertainty about the crop and I'm not saying these markets have seen their peak," he said.

LINE WAREHOUSE STOCKS (As at Thursday's close) +4,300 to 684,525 +800 to 74,380 -200 to 347,775 -1,625 to 99,200 -386 to 38,256 -1,325 to 632,225 -265 to 9,960

#### COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE

R ALUMBRUM, 99.7 PURITY (5 per torine) 1827-28 1628/1622 1622-5-23.0 1623-4 209,882 38,614 Open int. Total daily turnover M ALUMINIUM ALLOY (\$ per tori 1355-60 1355-60 1390-95 AM Official Kerb close Open Int. Total delly turnover 1350-55 LEAD (\$ per tonne) 756-56.5 757-58 772.5-3.5 767 767-66 771-72 768/747 763.5-64.0 751-2 36,819 8,227 Total dally turnover MICKEL (\$ per tonne) 7825-30 7720-30 7930-35 Open int. Total delily turnover 40.339 III TEN (\$ per torine) Close Previous High/low AM Official 6110-20 ZINC, special high grade (\$ per tonne) 1030.5-1.5 1037-38 1032.5/1032 .1052-52.5 1058/1054 1058-53.5 1052-3

COPPER, grade A (5 per tonne) 2537-38 2537-38 2548/2532 2587-90 Kerb close E LME AM Official C/S rate: 1.5281 LME Closing E/\$ rate: 1.5290 Spot. 1.5296 3 miles: 1.5268 6 miles: 1.5238 9 miles: 1.5208 HIGH GRADE COPPER (COMEX) 117.95 -1.20 118.05 117.90 1,205 5,960 117.05 -1.30 118.00 117.00 240 1,535 114.80 -1.20 115.40 114.60 4 765 113.55 -1.00 114.50 113.45 679 4.624 111,55 -0.80 112.00 111.50

PRECIOUS METALS E LONDON BULLION MARKET (Prices supplied by N M Rathschild) 383.10-393.50 Close Opening Morning for Afternoon for 393,70-394.10 Morning no.
Afternoon for
Day's High 399.80-394.20
399.80-394.20
399.85-392.85 Previous close 383.50-384.00 Loco Lint Mean Gold Lending Rates (Vs USS)

\$ price £ equity SFr equity 382.90 257.218 473.052 393.60 257.592 473.619 3 months -Silver Fix 350.15 355.10 Spot 3 months 547.60 369.05 \$ price 393-396 404.90-407.40 Gold Coins Krugemend Maple Leaf

PLATINGIM NYMEX (50 Troy oz.; \$/troy oz.) 408.3 +0.3 408.5 406.0 5,107 14,330 410.7 +0.2 410.5 408.0 903 6,047 413.0 +0.2 413.0 412.0 21 1,461 415.0 +0.2 - 526 786 6,031 22,834 M PALLADRUM NYMEX (100 Troy oz.: \$/troy oz.) CRUDE OIL NYMEX (42,000 US galls. \$/barrel) 18.40 +0.20 19.45 18.13 42.354 90.749 18.43 +0.10 18.50 18.25 25.061 67.947 17.94 +0.04 18.00 17.82 10.441 42.231 17.82 17.42 17.43 17.33 1.595 18.494 17.28 17.30 17.28 1,163 18.030 17.28 4.987 416.23 CRUDE OL IPE (\$/barrel) 
 Latest Degree price change
 High Low Holl Inst.
 Low Holl Inst.
 Open Inst.

 17.72
 40.22
 17.78
 17.52
 14,300
 54,172

 18.88
 40.13
 16.93
 16.72
 16,084
 46,084
 16,45 +0.15 16,45 16,30 3,675 28,246 16,14 +0.12 18,15 16,03 2,585 33,539 15,94 +0.96 15,99 15,85 695 8,241 15,87 +0.11 15,90 15,80 275 11,832 31,683 208,534 52.60 +0.45 53.00 52.05 16,068 27,988 32.00 +0.40 33.00 32.05 16,968 27,868 48,30 +0.19 49.50 49.00 5,167 14,047 48,05 +0.19 48.00 47.85 1,938 12,232 47.85 +0.24 47.95 47.70 840 7,874 48,60 +0.39 - 128 5,554 48.95 +0.24 49.00 48.85 24,627 86,122

158.75 + 1.50 156.75 165.50 7.461 23.030 158.25 + 1.50 156.75 157.00 8,189 18.210 152.50 + 0.50 153.25 152.25 2,108 7.087 150.00 + 1.00 150.50 149.75 1,005 7,890 149.00 + 0.50 148.50 148.50 70 4,889 149.00 +0.50 148.50 148.50 70 4,989 149.25 +0.50 150.00 148.50 674 2,942 17,942 73,597 M NATURAL GAS MMEX (10,000 mmStr.; \$/mmStr.) 2.165 -0.056 2.055 2.180 17,223 25,294 2.060 -0.860 2.155 2.080 4,819 18,075 1,895 -0.101 2.054 1,890 1,850 14,825 1,945 -0.015 1,980 1,945 1,059 12,566 1,920 -0.010 1,930 1,930 434 1,001 1,800 -0.020 1,925 1,890 446 1,001 2,986 1,900 IN UNILEADED GASOLINE 58.50 -0.13 59.20 57.90 8.083 30.276 56.95 +0.15 57.20 58.85 1,160 7,831 55.65 +0.15 55.75 55.40 823 5,707 55.76 55.40 833 5,707 54.30 54.30 784 3,055 - - 235 702 54.30 +0.10 53.65 +0.90

117.30 -0.70 117.35 116.50 WATEAT CST (5,000bu min; cents/60b bushel) 509.26 -3.25 518.50 505.00 2,426 7,336 494.50 -7.00 505.00 492.00 5,347 23,265 457.00 -10.25 488.50 453.50 47,055 48,756 480.00 -9.25 489.50 453.50 572 8,782 471.75 -8.25 480.00 470.00 794 8,803 472.00 -8.00 480.00 472.00 55 291 18,765108,682 MAIZE CBT (5,000 bu min; cents/56lb bushel) 383.25 -6.00 389.00 381.50 53.505 24,506 380.00 -3.00 38425 378.50 388,895 302.817 373.50 -2.75 377.25 371.75 112,300 120,852 323,75 - 325,75 322.00 13,540 35,561 311.00 +1.25 312.75 308.75 80,145 85,135 108.25 +0.25 107.75 107.75 20 335 108.00 +0.05 108.75 108.25 29 489 105.50 -0.20 - 37 107.25 -0.40 107.50 107.50 40 498 109.25 -0.40 - 93 88 1,447 713.75 -6.50 722.75 710.00 7,730 6,883 723.50 -6.80 732.50 720.00 174,710 70,699 732.00 -6.00 741.00 728.00 8,755 40,091 733.25 -6.00 741.90 730.50 299 3,883 720.50 -4.00 729.00 720.00 38,930 50,985 720.50 -4.00 729.00 720.00 38,930 50,855 60,994 192,685 SOYABEAN OIL CET (60,000/be: cents/fb) jižar Jišny Jai Aug Sep Oct Totali 23.45 -0.05 23.62 23.22 5.381 4,988 23.80 +0.02 24.02 23.68 8,970 37,058 24.16 - 24.40 24.09 2,983 25,787 24.28 - 24.55 24.30 1,307 7,483 24.25 - 24.75 24.49 301 3,770 24.73 +0.07 24.90 24.65 95 2,894 E SOYABEAN MEAL CET (100 tons; \$/ton) 225.5 -27 229.5 228.2 5,452 4,268 230.1 -3.1 233.4 229.0 15,582 39,248 233.3 -29 228.5 232.0 3,918 22,757 234.0 -24 237.0 233.2 145 8,470 233.4 -22 238.2 233.2 116 3,170 229.6 -1.9 232.3 229.0 119 2,545 28,359 85,852 E POTATOES LCE (E/torne) Her Apt Hay Jen Hov Total 186.3 199.0 1338 +20 1341 1315 Close Pres 1347 1349 FUTURES DATA All futures data supplied by CMS.

Mirror Metals,
European free market, from Metal Bulletin, 3
per B in warnhouse, unless otherwise stated
fast week's in brackets, where changed, Antimore; 98,6%, 5 per toxine, 3,450-3,650 (2,4253,650), Blemethe min, 99,99%, toxine lots 3,504,00 (3,65-4,10), Ceadmilants min, 88,85%,
148-160 (150-165) conts a pound. Cobath: MB
free market, 98,8%, 29,70-30,30 (20,00-30,75);
39,5%, 26,70-27,50 (27,30-28,00), Mercuny:
min, 99,99%, 5 per 76 ib flast, 153-175
(160-173), Metybelenstrue drummed motybelic
oxide, 2,90-4,20 (3,95-4,20), Selentium: min
98,55%, 3,45-4,10 (3,50-4,20), Tungsteen ores
sandard min, 65%, 5 per tonne unit (10kg)

918 612 16,494 937 1,127 38,940 957 824 18,957 975 1,370 37,522 ■ COCOA CSCE (10 tonnes; \$/tonnes) 1214 -11 1229 1210 7 198 1230 -11 1243 1229 4,16 39,989 1255 -8 1266 1254 3,889 21,412 1278 -9 1289 1278 431 11,893 1313 -9 1322 1313 1,670 12,204 ■ COCOA (ICCO) (SDR's/tonne) 
 2000
 +5
 2030
 1985
 425
 4,182

 1834
 +25
 1855
 1791
 2,482
 12,880

 1766
 +26
 1775
 113
 292
 4,389

 1733
 +24
 1740
 1696
 188
 2,983

 1706
 +25
 1710
 1677
 23
 1,237

 1685
 +22
 283
 3,360
 25,794
 ■ COFFEE 'C' CSCE (37,500lbs; cents/lbs) 116.90 +2.40 117.40 113.85 72 1,976 110.50 +2.00 110.00 110.00 ■ COFFEE (ICO) (US cents/pound) Pres. day 102.16 109.30 E No7 PREMIUM RAW SUGAR LCE (cents/bs) : : : : WHITE SUGAR LCE (Shonne) 377.7 +0.3 378.2 378.0 611 14,031 358.2 +1.2 358.5 357.0 438 7,141 322.9 +2.9 323.0 321.0 234 4,878 313.6 +1.0 - - 2,568 SUGAR "11" CSCE (112,000fbs; conts/lbs) 11.72 +0.02 11.74 11.53 4.987 61.576 10.87 +0.01 10.88 10.74 1,875 35,607 10.51 +0.01 10.54 10.38 308 27,547 10.24 - 10.28 10.16 140 14.186 10.16 +0.01 10.17 10.13 90 3,481 10.00 - 10.00 10.00 20 1.326 7,430 144,061 22 979 COTTON NYCE (50,000lbs; cents/lbs) Mar May Jul Get Doc Mar Total 81.20 -0.28 82.05 81.30 131 82.96 =0.40 83.25 82.35 5,177 21,858 82.97 =0.52 83.90 82.93 1,272 11,787 81.25 +0.02 81.45 81.10 101 2,375 79.85 -0.10 80.15 79.85 954 17,115 80.83 -0.05 81.00 80.87 10 1,614 41 B21 - 52 313 4,780 ■ ORANGE JUICE NYCE (15,000fbs; cents/fbs) 130.70 +0.20 131.50 130.40 336 432 127.45 -0.35 128.20 127.40 997 12.386 126.40 -0.85 127.40 126.40 267 2,952 Jan Total 121.50 +0.05 121.50 121,50 69 2,417 1,827 20,986

MOLLINE DATA YOLUME BATTA Open interest and Volume date shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME and CSCE are one day in arrears. INDICES ■ REUTERS (Base: 18/9/31=100) ■ CRS Futures (Base: 1967=100) year ego 232,11 ■ GSCI Spot (Base: 1970=100)

LONDON TRADED OPTIONS Strike price \$ tonne 1700 ...... May Jul 140 83 45 COCOA LCE LONDON SPOT MARKETS +01-

+0,915 W.T.J. ■ Cil. PRODUCTS NWE prompt delivery Cif (forms) Premium Gasoline Ges Of Heavy Fuel Of Naphtha Jet fuel \$167-169 \$203-205 \$171-173 (0171) 359 8792 Gold (per troy oz) Silver (per troy oz) Platinum (per troy oz.) Paliadium (per troy oz.) 536.5c 122.0c 41.75c 15.70m 268.50c Lead (US prod.) Tin (Kusis Lumpur)
Tin (New York) -2.00 Cettle five weight)†
Sheep (ive weight)†
Pigs (live weight)† 119.64 -1.64 -0.21 133.02 105.68 5312.4 +2.6 +0.2 FOU GOA STIGHT (LAN Lon. day sugar (wto Bartey (Eng. feed) Malze (US No3 Yello 150.5z Wheat (US Dark North) Rubber (Apr)♥ Rubber (May)♥ Rubber (KL RSS No1) 403.50m

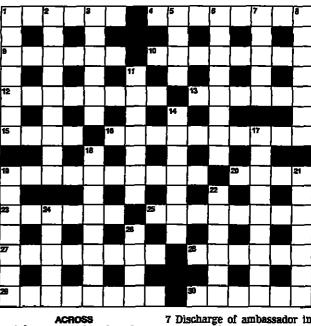
\$507.5u 470.0v +2.5 +5.0 -2.0 Copra (Philips) Soyabeans (US) Cutton Cuttook A' index E per tonne unless otherwise stated, p pance/kg, c canta/ks, r ringgiring, m lejanysten canta/kg, u Mar. V w Apr. y Fob/ Mar. v Agrikay London Physical. S CR Rotterdem. \$ Bullion markel close. \$ Sheep (Live weight prices). \* Change on weak r/Procs are for previous week.

\$740.0v

Coconut OI (Philis Paim Oil (Malay.)§

CROSSWORD

No.9,011 Set by DANTE



1 Lehar composition about love set in Pakistan (6)
4 Highflier's pranks (8)
9 This French rebel is a red (6) (7) 11 Like a hand? Get a couple of

12 Struggle in which the Ser-17 The Spanish girl putting it vices prove decisive (3-5) 13 Snooker on the green? (6) 15 Note goes to small house in 18 Arrival of actor on stage to part of London (4) produce delight (8)

16 I'm in prison without money. 19 Bill includes a broken chair that's the snag (10) that's antique (7)

19 Nepal organised equipment 21 Regret about arranging it en for mountain staff (10) 20 Not a cheap term of affection 22 Current charge for what solic

23 Readjusts his car seats (6) 25 Liking for a swansong (8) 27 Is it dealt with at the end of a medical textbook? (8) 28 Not one on view (6)

DOWN 1 Places drawn roughly to scale 2 Chastise wanton whores with

it (9) 5 H.G. Wells hero, we hear,

Solution 9,010 29 Young female accompanist (8)
30 Attitude a driver may take, of course (6)

METALIS OF FEINCES A A A E COURSE (6)

NIICKEL SIUGGARI

strange circumstances....(5)
8 ....his guilt is a possibility

14 Washed up when everyone

back on, achieves uplift (9)

26 Take hat round beach near

was in bed (7)

suite (7)

itors do (6)

Venice (4)

24 Physt-class letter (5)

#### INTERNATIONAL CAPITAL MARKETS

## Traders torn between conflicting signals

By Samer Iskandar in London and Lisa Bransten in New York

Government bond markets lacked inspiration yesterday, as traders were torn between conflicting signals from both sides of the Atlantic.

With US economic activity appearing stronger than previously believed, a rate cut by the Federal Reserve seems increasingly unlikely.

In the UK, the mood was more positive following com-ments by Mr Eddie George, the governor of the Bank of England, after a board meeting of the European Monetary

Institute in Frankfurt.
Mr George said he was "quite encouraged by the prospects after the last inflation report." which some observers took as a hint that conditions were ripe for a cut in British

taking and worries about the strength of the economy.

Near midday, the benchmark 30-year Treasury was down 🚆 at 94%, to yield 6.391 per cent, and the two-year note was 🗓 lower at 99%, yielding 5.276 per cent.

The fact that the yield on two-year notes rose above the federal funds target rate of 51/a per cent was a sign that investors do not expect the Federal Reserve to lower interest rates at the March 26 meeting of its Open Market Committee.

The market also interpreted comments from Mr Alan Greenspan, the Fed chairman, as a signal that monetary policy would remain steady. Mr Greenspan told the Independent Bankers Association of America that some indicators may be understating US economic growth.

■ US Treasury prices gave up some of the gains made on Fri-Wall Street consensus on Over the past two weeks, the

day and Monday in early trading on a combination of profit-rates has been in flux, leading to volatile trading and sharp swings in the shape of the yield curve. Yesterday, the yield curve flattened to 112 basis points from 116 points late on Monday.

#### GOVERNMENT BONDS

UK government bonds were driven by international markets yesterday, as volumes and volatility remained subdued, while traders waited for a widely-expected cut in UK offi-

cial interest rates. However, gilts under-performed the US and major continental European markets. Liffe's June 10-year gilt future closed at 107 2. down 1/2. Ten-year spreads widened by 4 basis points to 192 points over Treasuries, and by 3 basis points to 163 points over bunds.

Mr Don Smith, UK economist at HSBC, believes this underperformance is "in part redressing the outperformance of the last few weeks." He is convinced there will be a rate cut, but warns of "more downside risk than upside potential", since he considers the next easing to be largely

reflected in current prices.

■ German bunds opened lower and extended losses during the afternoon in the wake of falling US Treasuries, but also suffered from rumours, later denied by the Bundesbank, that revised M3 money supply growth in January could be much higher than the provisional figure of 8.4 per cent. The March 10-year bund future closed at 97.65, down 0.32. In the cash market, the

German yield curve steepened

slightly as the 10-year yield rose by 6 basis points to 6.83 "Trading in bunds is purely

on Lifte. He warned of potentially high volatility if this week's unemployment and GDP figures, due out today and tomorrow respectively, diverge from expectations.

■ French bonds were relatively well supported in the unstable international environment. The yield curve steepened slightly as short rates drifted lower and longer maturities remained almost

Matif's March 10-year bond future closed at 121.86, down 0.02, and the March threemonth Pibor contract settled at 95.67, up 0.05. In the cash mar-ket, the 10-year yield was up one basis point at 6.56 per cent, and the 10-year spread over German bunds tightened by 4 basis points to 24 points.

The main factors supporting OATs were the strength of the French franc and a fall in overnight interest rates.

NEW INTERNATIONAL BOND ISSUES

"This revived hopes of a cut in official rates on Thursday, said Ms Nathalie Fillet, a bond strategist at Paribas in Paris. Some analysts are more cautious and believe the next rate cut is already priced into the market, but Ms Fillet is confi-

dent that even if there is no easing this week, "a rate cut is still on the cards". ■ Spanish bonds continued to fall, as the central bank left

rates unchanged. "Market participants who were expecting a monetary easing immediately after [last Sunday's] election now realise the Bank of Spain will not act before the political uncertainty is over, and that could take days," said an institutional bond investor.

The March futures contract on 10-year Bonos closed at 94.10, down 0.42 but observers believed the recent correction was "overdone . . . and unlikely to go much further".

## Kvaerner raises £450m bridge loan for Trafalgar bid

Kvaerner, the Norwegian engineering and shipbuilding group which has made an agreed £904m takeover bid for Trafalgar House of the UK, has become the latest company to raise acquisition financing in the international syndicated loans market.

#### SYNDICATED LOANS

Four banks – Chemical, Den norske Bank, Enskilda, and SBC Warburg (which advised Kvaerner on the takeover) are providing Kvaerner with a two-year "bridge" loan of £450m. Details will be disclosed in the offer document, which is likely to be published early

next week.

Even though the bid is not hostile and the banks are lending directly to Kvaerner, rather than a special-purpose vehicle - as was the case in some of the takeovers of UK regional electricity companies the interest margin on the loan is expected to be well in excess of that on a similar-

out last year.

The old loan pays 25 basis points over London interbank offered rate. On the new loan, the leveraged nature of the Trafalgar House purchase, the asset disposals involved and the short life of the loan suggest Kvaerner will have had to

sized facility Kvaerner took

agree to an interest margin in the high 30s. The arrangers of the loan are expected to go straight to gen-eral syndication, because a

sub-underwriting stage is not necessary due to its size. News that the proposed merger between MAI, the UK television and financial services group, and United News

& Media, owner of Express

7.11 8.01

2,79

7.13 8.03

8.75 8.68 8.62 8.61

2.79

referred to the Monopolies and Mergers Commission means the £535m and \$255m threeyear facilities arranged by Chemical and Lloyds for the new group can proceed. The two facilities, which carry margins of 27.5 basis points over Libor, are likely to be underwritten in the next few days. Although acquisition financ中 经债 可 " 被 : " 被 : " 证

- 1498

ing has dominated the syndicated loans market in recent months, there has been a steady flow of corporate lending, mainly for refinancing. Rank Xerox, the office equipment supplier, yesterday said it had asked Banque Nationale de Paris, NatWest Capital Markets and Union Bank of Switzerland to arrange a £400m five-year revolving credit facil-

ity. The facility fee and margin over Libor have been set at 7.5 basis points each, and there is a utilisation fee of 2.5 points. The other notable corporate facility in the past week was a DM1bn seven-year revolving credit for Preussag, the German metals and engineering group. Like Rank Xerox, the facility fee and the margin

over Libor have been set at 7.5 basis points each. Utilisation fees range from zero to 4 per cent. The arranger is WestLB and Preussag's relationship banks will be invited into the Ioan. Bankers said it was refreshing to see WestLB win a big loan from corporate Germany, the preserve of Deutsche Bank and J.P. Morgan in recent times.

A \$350m five-year amortising loan for Investcorp, the Bahrain-based investment group, is now in general syndication. The original group of arrangers - Bankers Trust, Bank of Tokyo, Chemical, Credit Suisse, NatWest, Société Générale and WestLB - has been expan-ded to include another nine

7.26 8.16 8.24

1.52 2.43

STRESS RATES

Mar 4 Yr. ago Mar 5 Mar 4 Yr. ago Mar 5 Mar 4 Yr. ago

1.52

8.78 8.80 8.80

7,15 8.01

7.17 8.05

## Successful \$200m debut for Norwegian telecoms group

By Conner Middelmann

Telepor, the Norwegian stateowned telecommunications company, made a successful eurobond debut yesterday with

\$200m of five-year bonds. The paper was priced to yield 24 basis points over Treasuries, 3 basis points below outstanding bonds issued by the UK's National Grid. Despite that somewhat aggressive pricing, the issue attracted strong demand from investors seeking exposure to the telecommunications sector and Norwegian risk.

"Norwegian entities are very infrequent borrowers on the eurobond market," said one

said it sold all the bonds by the time they were priced, and

and retail demand in Europe and east Asia.

After weeks of preparation, the Inter-American Development Bank launched its \$1bn 10-year global issue yesterday. It was priced at 29 basis points

#### INTERNATIONAL BONDS

over Treasuries, 2 to 21/2 basis points over the World Bank's 10-year benchmark and 2 basis points below the Asian Development Bank's last 10-year

According to lead managers Merrill Lynch and SBC Warburg, some 35 per cent of their allocation went to North and South America, 30 per cent to investors in the UK and

reported a mix of institutional Europe, 26 per cent to Japan and the rest to non-Japan Asia.
"We have achieved our major strategic objectives: broad distribution and good pricing, and expect an optimal secondary market performance," said Mr Saul Hanono,

> Switching into the IDB issue from existing eurobonds helped push spreads in the secondary market out by about 2 basis points in the 10-year sector and I basis point in fiveyears, dealers said.

the bank's chief of funding.

Also weighing on secondary spreads has been the high cost of borrowing 10-year Treasuries in the repo market as a hedge against long eurobond positions. Due to a lack of stock, 10-year dollar repo rates have fallen from around 5% per cent last week to about 11/2 per

Amount m.	Coupon %	Price	Maturity	Fees %	Spread bp	Sook-runner
1bn	6.125#	99.117R	Mar 2005	0 325R		Merriil Lynch/SBC Warburg
200	5.75	99.563R	Mar 2001	0.275R	+24(5%%-01)	JP Morgan Securities
110		100.00	Apr 2001		-	Jardine Fleming
		99.85R			+337(5%-99)	UBS
100	5.00#	100.025	Mar 1997		-	Lehman Brothers Intl
94.75	2.625	100.00	Mar 2000	2.25	-	Musubishi Finance Inti
300	4.25	99.81R	Apr 1999	0.1875R	+12(5%%-99)	ABN Amro/Goldman Sach
200	3.25	102.15	Oct 1999	1.50	-	Memil Lynch Capital Mits
250	6.375	99.17R	Mar 2006	0.325R	+20(5%-05)	ABN Amro Hoare Govett
2bn	6.625	102.30	Apr 2006	2.00	-	9CEE/BIL
100	8.00	100.775	Apr 2001	2.00	-	Hambros Bank
50	5.25	98.268R	Dec 1999	0.225R	+40(5%-93)	Morgan Stanley & Co Inti
	m. 1bn 200 110 100 100 94.75 300 200 250 2bn	m. % 1bn 6.125# 200 5.75 110 2.50 100 9.00# 100 5.00J 94.75 2.825 300 4.25 200 3.25 250 8.375 2bn 6.625	m. %  1bn 6.125# 99.117R 200 5.75 99.563R 110 2.50 100.00 100 9.00# 99.85R 100 5.00# 100.025 94.75 2.825 100.00 300 4.25 99.81R 200 3.25 102.15 250 8.375 99.17R 2bn 6.625 102.30	m. %  1bn 6.125# 99.117R Mer 2005 200 5.75 99.563R Mer 2001 110 2.50 100.00 Apr 2001 100 9.00# 99.85R Mer 2004 100 5.00# 100.025 Mer 1997 94.75 2.625 100.00 Mar 2000 300 4.25 99.81R Apr 1999 200 3.25 102.15 Oct 1998 250 8.375 99.17R Mer 2006 2bn 6.625 102.30 Apr 2006	m. % % %  1bn 6.125# 99.117R Mar 2005 0 325R 200 5.75 99.563R Mar 2001 0.275R 110 2.50 100.00 Apr 2001 2.50 100 9.00# 99.85R Mar 2004 0.875R 100 5.00# 100.025 Mar 1997 0.05 94.75 2.825 100.00 Mar 1997 0.05 300 4.25 99.81R Apr 1999 0.1875R 200 3.25 102.15 Oct 1998 1.50 250 8.375 99.17R Mar 2006 0.325R 2bn 6.825 102.30 Apr 2006 2.00 100 8.00 100.775 Apr 2001 2.00	m. % bp  1bn 6.125# 99.117R Mar 2005 0 325R +23(5%%-05) 200 5.75 99.563R Mar 2001 0.275R +24(5%%-05) 1100 2.50 100.00 Apr 2001 2.50 100 9.00# 99.85R Mar 2004 0.875R +337(5%-99) 100 5.00# 100.025 Mar 1997 0.05 94.75 2.825 100.00 Mar 2000 2.25  300 4.25 99.81R Apr 1999 0.1875R +12(5%%-99) 200 3.25 102.15 Oct 1998 1.50  250 6.375 99.17R Mar 2006 0.325R +20(5%-05) 250 6.375 99.17R Mar 2006 0.325R +20(5%-05) 250 6.825 102.30 Apr 2006 2.00 -

SConvertible. (I) With equity warrants. #Semi-arnual coupon. R: fixed re-offer price; fees shown at re-offer level. (a) Conversion price: bath 450, FX: 23.2 bath 5. Redemption price: 127.25%. Callable from 14/99, subject to 140% rule, at acreted value, b) Callable and purtable on 26/3/99 & 26/3/01 at 95% 8.99% especially. (a) Warrants exemplate into shares of Nideo Corp. Fronge 12/3/96, d) A\$100 launched 20/2/96 was increased to A\$200m. e) Fungible with Ecu400m. Plus 95 days accrued. s) Short 1st coupon.

cent, leading to a sharp rise in borrowing costs. "This makes traders reluctant to be long stock, so they've been selling it and that's causing spreads to widen," said a dealer,

 Yorkshire Water, the UK utility, yesterday announced that it is repurchasing its 6.75 per cent convertible bonds due 2008 at a price of 112, via James Capel and Cazenove.

1 Up to 5 years (23)

6 Up to 5 years (1)

FT-ACTUARIES FIXED INTEREST INDICES

122.82

196.90

Day's change %

-0.01 -0.16 -0.36 +0.38 -0.14

+0.02

122.84 148.45 162.18 186.12 143.27

196.86

 Standard & Poor's has assigned a B+ rating to Brazil's Y30bn five-year samurai issue which was launched on Monday and said its outlook on Brazil's rating is positive.

2.18 2.93 2.22 3.85 2.56

3.16

1.58 5 yrs 1.21 15 yrs 2.52 20 yrs 0.00 irred.† 1.57

0.00 Up to 5 yrs

W/O.D																
WOHL	D BON	D PRI	CES													
BENCH	<b>EMARK</b>	GOVE	RNME	NT BO	NDS				M BUND FU	JTURES :	OPTIONS (	LIFFE) DA	1250,000 po	ints of 100%	4	
			Red		Day's		Veek	Month	Strike		CA	LLS			PUTS	
		Coupon	Date	Price	change	Yield	ago	ago	Price	Apr	May	מעל	Sep /	Apr Mag	y Jun	5ep
Australia		10 000	02/06	110.4150	-0.500		8.72	8.02	9650	0.78	1.13	1.34		50 0.85		1.85
Austria		6.125	02/06	97.4900	-0 160		5.53	6.13	9700 9750	0.51 0.30	0.86	1.07		73 1.08		2.12 2.42
Belgum Canada *		7.000 8.750	05/06 12/05	101.7100 109.4700	-0 190 +0.010		8.90 7,52	6.30 7.12	9730 Est. vol. total,		0.63	0.83		02 1.35		
Denmark		8.000	03/06	103.4800	-0.010		7.71	6.80	CSC ANT MIST	CHES 103	38 PUS 2304	A). Promogr	cays open	ML (485 234	24 PUB 19	1427
France	BTAN	7.000	10/00	105.6250	-0.250	5.58	5.77	5.41	Italy							
	CAT	7.250	03/06	104.8000	-0.260		5.74	6.38	M NOTION	u mair	AN COUR	BOND /B	704 SITE	E6		
Germany 8 Ireland	Sund	6.000 8.000	01/06 08/06	97.6100 101.5700	-0.340 -0.230		8.42 7.89	5.85 7.24			100ths of		ir, reien			
taly		10 500	09/05	102,4100			0.45	10.03					Lilet	Low	Est. vol	Come in
Japan	No 129	6.400	03/00	116.9010	+0.360		2.13	1.73		Ореп	Sett price	_	_			Open in
	No 182	3.000	09/05	98.4320	+0.036	3.22	3.21	2.97	Mar Jun	111.72 111.40	111.42 110.62	-0.06 -0.43	111.99 111.57	111.31 110.60	10498 46356	9875 43102
Netherland	9	6.000 11.875	01/06 02/05	97.7300 113.0000	-0.310 -0.120		5,41 9 58	5.85 9.21								
Portugal Spain		10.150	01/06	100.8600	-0.440		9.71	9.45	E ITALIAN	GOVI. B			SUPTIONS	(UITHE) URB		ns 01 1UU
Sweden		6.000	02/05	82.0100	-0.950		3.87	8.25	Strike			шs —		<del></del>	PUTS	_
UK Gats		8.000	12/00	103-26	-6/32		7.21	6.70	Price		TIN	Şe	-	Jun		Sep
		7.500	12/06	97-22	-12/32		7.96	7.38	11050		2.06	2.6		1.94		2.92
US Treasu	n •	9.000 5.625	10/08 02/06	108-05 97-11	-14/32 -6/32		3.07 3.05	7.54 5.69	11100 11150		1.80 1.56	2.4 2.2		2.18 2.44		3.19 3.48
00 170000	.,	6.000	02/26	91-21	-14/32		3.47	6.10	Est. vol. total.							
ECU (Frenk	ch Govti	7.500	04/05	103.3500	+0.200		7.23	6.71					-,,			
	ing, "Now Yor						i man	et standard.	Spain							
	ticing willing (M in Janet, i			cent payable	by nonreside		1316	/rigmatural	NOTIONA	L SPAN	ISH BOND	FUTURES	(MEFF)			
FF445 (15. E	and an extension of	A11613 111 1161	,010			SUBJUE	- Cumula	e ngrisava se					•	1	E-1	A b
US INT	EREST	RATE	S							Open	Sett price		_	Low	Est. vol.	Open in
									Mar Jun	94.90 94.50	94.08 93.75	-0.42 -0.45	95.14 94.53	93.81 93.32	79,606 3,823	47,127 7,281
Latest		_		Treasury	Bills and 8				UK	34.50	23.73	-0.43	34.33	93.32	3,023	7,201
Prima rate .		On Bi <sub>a</sub> Te	e meath		5.13 Two 5.04 Tem	year		5.29 5.41								
Braker loan ra	<b>**</b>	: Th	rea mariĝi		5.03 Five	e year		562	■ NOTIONA	TOKG	LT FUTUR	es (LIFFE)	° £50,000 3	2nds of 1009	*	
Fed funds		54 50	300min		502 10- 508 30-			5.97 6.39		Open	Sett price	Change	High	Low	Est. vol	Open in
- PO - PA-PO - PO -	MEN PERMIT	. M	o year		3.00 30	n Tr		0.20	Mar	108-16	107-28	-0-15	108-23	107-27	21092	51728
									Jun	107-23	107-03	-0-16	107-31	107-00	68274	97159
									E LONG GIL	LT PUTU	RES OPTIC	ans (LIFF	E) 250,000 6	Atths of 100°	*	
									Strike			ша			PUTS	
									Price	Apr	Мау	Jun	-	pr May		
BOND	FUTUR	ES AN								-					Jun	Sep
			D OP	IIONS					107	0-56	1-26			50 1-20	1-42	2-52
		_~ ~,1	D OP	TIONS					106	0-56 0-28	0-61	1-17	1-44 1-	22 1-55	1-42 2-11	2-52 3-26
			D OF	TIONS					106 109	0-56 0-28 0-12	0-61 0-38	1-17 0-57	1-44 1-1 1-21 2-1	22 1-55 36 2-32	1-42 2-11 2-51	2-52
France			D OF	IKOMS					106	0-56 0-28 0-12	0-61 0-38	1-17 0-57	1-44 1-1 1-21 2-1	22 1-55 36 2-32	1-42 2-11 2-51	2-52 3-26
France					Fr500.000				106 109 Est. vol lotal.	0-56 0-28 0-12	0-61 0-38	1-17 0-57	1-44 1-1 1-21 2-1	22 1-55 36 2-32	1-42 2-11 2-51	2-52 3-26
	) NAL FRENC	SH BOND	FUTURE	S (MATIF) F		Ent		Onen uni	108 109 Est. vol lotal. (	0-56 0-28 0-12 Cars 2954	0-61 0-38 Puis 2548.	1-17 0-57 Previous di	1-44 1- 1-21 24 zy's open int.	22 1-55 36 2-32	1-42 2-11 2-51	2-52 3-26
E NOTICE	NAL FRENC	Sett price	FUTURE:	S (MATIF) Fi	Low	Est.		Open int.	106 109 Est. vol lotal.	0-56 0-28 0-12 0-12 Cass 2954	0-61 0-38 Puls 2548. RES (MATE	1-17 0-57 Previous di	1-44 1-1 1-21 2-1 ay's open int.	22 1-55 36 2-32 Calls 36939	1-42 2-11 2-51 Puis 24415	2-52 3-26 4-03
Mar	NAL FRENC Open 122 10	Sett price	FUTURE: Chang	S (MATIF) Fi je High i 122,26	Low 121.8	116,	59	123,658	106 109 Est vol local I Ecu Ecu BON	0-56 0-28 0-12 Calo 2954 ID FUTUI	0-61 0-38 I Puts 2548. RES (MATE Sett price	1-17 0-57 Previous do F) ECU100 Change	1-44 1-1 1-21 2-1 ay's open int, 1,000 High	22 1-55 06 2-32 Calls: 36939	1-42 2-11 2-51 Puts 24415 Est. vol.	2-52 3-26 4-03 Open in
Mar	Open 122 10 122.10	Sett price 121 96 121.82	FUTURE: Chang +0 16 +0.10	S (MATIF) FI je High 3 122,26 3 122,26	Low 121.8 121.8	116,	759 78	123,658 33,496	106 109 Est. voi lotal. I Ecu ECU BON	0-56 0-28 0-12 Cala 2954 ID FUTUI Open 90.76	0-61 0-38 Puls 2548. RES (MATE Sett price 90 60	1-17 0-57 Previous di F) ECU100 Change +0.48	1-44 1-1 1-21 2-4 zy's open int. 1,000 High 90.88	22 1-55 06 2-32 Calls 36939 Low 90.50	1-42 2-11 2-51 Puts 24415 Est. vot. 2,822	2-52 3-26 4-03 Open in
Mar Jun Sep	Cpca 122 10 122.70 120 90	Set price 121 96 121.82 120 62	FUTURE: Chang +0 16 +0.10 +0 10	S (MATIF) FI le High 5 122.26 0 122.26 0 121.00	Low 121.8 121.8	116,	759 78	123,658	106 109 Est vol local I Ecu Ecu BON	0-56 0-28 0-12 Calo 2954 ID FUTUI	0-61 0-38 I Puts 2548. RES (MATE Sett price	1-17 0-57 Previous do F) ECU100 Change	1-44 1-1 1-21 2-1 ay's open int, 1,000 High	22 1-55 06 2-32 Calls: 36939	1-42 2-11 2-51 Puts 24415 Est. vol.	2-52 3-26 4-03 Open in
Mar Llun Sep	Open 122 10 122.10	Set BOND Sett price 121 96 121.82 120 62 4CH BOM	FUTURES: Chang +0 16 +0 10 -0 10	S (MATIF) FI le High 5 122.26 0 122.26 0 121.00	Low 121.8 121.8	116, 21,8 19	759 78 7	123,658 33,496	108 109 Est, voi total, i EGU E ECU BON Mar Jun	0-56 0-28 0-12 Cala 2954 ID FUTUI Open 90.76	0-61 0-38 Puls 2548. RES (MATE Sett price 90 60	1-17 0-57 Previous di F) ECU100 Change +0.48	1-44 1-1 1-21 2-4 zy's open int. 1,000 High 90.88	22 1-55 06 2-32 Calls 36939 Low 90.50	1-42 2-11 2-51 Puts 24415 Est. vot. 2,822	2-52 3-26 4-03 Open in
Mar Llun Sep E LONG 1	Cpen 122 10 122 10 120 90 120 90	Sett price 121 96 121.82 120 62 WCH BOM	FUTURES: Chang +0.16 +0.10 +0.10 D OPTION	S (MATIF) FI 10 High 122.26 121.00 121.00 NS (MATIF)	Low 121.8 121.8 120.7	116,3 21,8 2 19	759 78 7	123,658 33,496 2,395	108 109 Est. voi lotal. V ECU ECU BON Mar Jun US	0-56 0-28 0-12 Cato 2954 D FUTUI Open 90.76 90.14	0-61 0-38 I Puis 2548. RES (MATE Sett price 90 60 90 06	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46	1-44 1-1-21 2-1 ny's open inc. 1,000 High 90.88 90.28	22 1-55 96 2-32 Calls 36939 Low 90.50 90.02	1-42 2-11 2-51 Puis 24415 Est. vol. 2,822 566	2-52 3-26 4-03 Open in
Mar Jun Sep ELONG 1 Stoke Price	Cpca 122 10 122.70 120 90	Sett price 121 96 121.82 120 62 WCH BOM	FUTURES: Chang +0 16 +0 10 -0 10	S (MATIF) FI le High 5 122.26 0 122.26 0 121.00	Low 121.8 721.8 120.7	2 116.3 2 21.8 2 19 PUTS May	759 78 7	123,658 33,496 2,395	108 109 Est, voi total, i EGU E ECU BON Mar Jun	0-56 0-28 0-12 Cass 2954 ID FUTUI Open 90.76 90.14	0-61 0-38 I Puis 2548. RES (MATE Sett price 90 60 90 06	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46	1-44 1-1-21 2-4 ay's open lat. 0000 High 90.88 90.28	22 1-55 96 2-32 Calls 36939 Low 90.50 90.02	1-42 2-11 2-51 Puto 24415 Est. vot. 2,622 566	2-52 3-26 4-03 Open in 7,809 1,939
Mar Llun Sep E LONG 1	Cpen 122 10 122 10 120 90 120 90	Sett BOND  Sett price 121 96 121.82 120.62 120.62 ICH BOND	FUTURE:  Chang  -0.16  -0.10  -0.10  D OPTION	S (MATIF) FI 10 High 1 122.26 0 121.00 NS (MATIF)	Low 121.8 121.8 120.7	116,3 21,8 2 19	759 78 7	123,658 33,496 2,395 Jun 0 50	108 109 Est. voi lotal. V ECU ECU BON Mar Jun US	0-56 0-28 0-12 Cato 2954 D FUTUI Open 90.76 90.14	0-61 0-38 I Puis 2548. RES (MATE Sett price 90 60 90 06	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46	1-44 1-1-21 2-1 ny's open inc. 1,000 High 90.88 90.28	22 1-55 96 2-32 Calls 36939 Low 90.50 90.02	1-42 2-11 2-51 Puis 24415 Est. vol. 2,822 566 % Est. vol.	2-52 3-26 4-03 Open in
Mar Juni Sep II LONG 1 Stoke Price	Cpen 122 10 122.10 120.90 FERM FREE	SH BOND Soft price 121.96 121.92 120.62 120.62 ICH BOND ICH	FUTURE: Chang +0 16 +0.10 +0 10 D OPTION	S (MATIF) FI 10 High 122.26 122.26 121.00 NS (MATIF)	Low 121.8 121.8 120.7 120.7	2 116.3 2 21.8 2 19 PUTS May	759 78 7	123,658 33,496 2,395	108 109 Est. voi lotal. I EGU EL ECU BON Mar Jun US EL US TREAS	0-56 0-28 0-12 Caso 2954 Open 90.76 90.14 SURY BC	0-61 0-38 I Puts 2548. RES (MATE Sett price 90 60 90 06 OND FUTUI	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46 RES (CST) Change +0-02	1-44 1-1-21 2-4 ay's open int.  1,000 High 90.88 90.28  1,5190.000 3 High 116-22	22 1-55 08 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 Low 115-26	1-42 2-11 2-51 Puis 24415 Est. vol. 2,822 566 % Est. vol. 30,545	2-52 3-26 4-03 Open in 7,809 1,939
Mar Juni Sep LONG 1 Stoke Price 119 120 121 121 122	Open 122 10 122 10 120 90 120 90 FERM FREE	Self BOND Soft price 121 96 121.82 120.82 120.82 ICH BOND	FUTURE: 2 Chang 40 16 40.10 40 10 D OPTION LLS	S (MATIF) FI 10 High 122.26 121.00 NS (MATIF) Jun 2 60 1.86 1.33	Low 121.8 121.8 120.7 120.7	2 116.3 21.8 2 19 	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72	108 109 Est. voi lotal. V ECU ECU BON Mar Jun US EUS TREAS	0-56 0-28 0-12 Caso 2954 ID FUTUI Open 90.76 90.14 SURY BC	0-61 0-38 Puts 2548. RES (MATH Sett price 90 60 90 06 DND FUTUN 116-03 115-18	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46 RES (CST)	1-44 1-1-21 2-1 y's open int. 1,000 High 90.88 90.28 15100.000 3 High 116-22 116-08	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 Low 115-26 115-09	1-42 2-11 2-51 Puis 24415 Est. vol. 2.822 586 Est. vol. 30,545 233,805	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034
Mar Jun Sep II LONG 1 Stoke Price 119 120 121 122 123	NAL FRENC Cpen 122 10 122 10 120 90 FERM FREI Apr 2 00 0 27	Set BOND Set price 121.96 121.92 120.62 4CH BOM  M	FUTURES: Change +0.10 +0.10 +0.10 D OPPOSITE	S (MATIF) FI 10 High 10 12228 121.03 NS (MATIF) Jun 2 50 1.85 1.33 0 B6	Low 121.8 121.8 120.7 Apr 0.10 0.19 0.39 0.77	116.3 21.8 2 19 	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	108 109 Est. voi lotal. V ECU ECU BON Mar Jun US EUS TREAS	0-56 0-28 0-12 Caso 2954 Open 90.76 90.14 SURY BC	0-61 0-38 I Puts 2548. RES (MATE Sett price 90 60 90 06 OND FUTUI	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46 RES (CST) Change +0-02	1-44 1-1-21 2-4 ay's open int.  1,000 High 90.88 90.28  1,5190.000 3 High 116-22	22 1-55 08 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 Low 115-26	1-42 2-11 2-51 Puis 24415 Est. vol. 2,822 566 % Est. vol. 30,545	2-52 3-26 4-03 Open in 7,809 1,939
Mar Jun Sep II LONG 1 Stoke Price 119 120 121 122 123	NAL FRENC Cpen 122 10 122 10 120 90 FERM FREI Apr 2 00 0 27	Set BOND Set price 121.96 121.92 120.62 4CH BOM  M	FUTURES: Change +0.10 +0.10 +0.10 D OPPOSITE	S (MATIF) FI 10 High 122.26 121.00 NS (MATIF) Jun 2 60 1.86 1.33	Low 121.8 121.8 120.7 Apr 0.10 0.19 0.39 0.77	116.3 21.8 2 19 	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	108 109 Est. voi lotal. V ECU ECU BON Mar Jun US EUS TREAS	0-56 0-28 0-12 Caso 2954 ID FUTUI Open 90.76 90.14 SURY BC	0-61 0-38 Puts 2548. RES (MATH Sett price 90 60 90 06 DND FUTUN 116-03 115-18	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46 RES (CST) Change +0-02	1-44 1-1-21 2-1 y's open int. 1,000 High 90.88 90.28 15100.000 3 High 116-22 116-08	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 Low 115-26 115-09	1-42 2-11 2-51 Puis 24415 Est. vol. 2.822 586 Est. vol. 30,545 233,805	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034
Mar Jun Sep II LONG 1 Stoke Price 119 120 121 122 123	NAL FRENC Cpen 122 10 122 10 120 90 FERM FREI Apr 2 00 0 27	Set BOND Set price 121.96 121.92 120.62 4CH BOM  M	FUTURES: Change +0.10 +0.10 +0.10 D OPPOSITE	S (MATIF) FI 10 High 10 12228 121.03 NS (MATIF) Jun 2 50 1.85 1.33 0 B6	Low 121.8 121.8 120.7 Apr 0.10 0.19 0.39 0.77	116.3 21.8 2 19 	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	108 109 Est. voi lotal. V ECU ECU BON Mar Jun US EUS TREAS	0-56 0-28 0-12 Caso 2954 ID FUTUI Open 90.76 90.14 SURY BC	0-61 0-38 Puts 2548. RES (MATH Sett price 90 60 90 06 DND FUTUN 116-03 115-18	1-17 0-57 Previous di F) ECU100 Change +0.48 +0.46 RES (CST) Change +0-02	1-44 1-1-21 2-1 y's open int. 1,000 High 90.88 90.28 15100.000 3 High 116-22 116-08	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 Low 115-26 115-09	1-42 2-11 2-51 Puis 24415 Est. vol. 2.822 586 Est. vol. 30,545 233,805	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034
Mar Jun Sep ELONG 1 Stoke Price 120 121 122 123	Apr 2 05 0 22 0 0 2	Set BOND Set price 121.96 121.92 120.62 4CH BOM  M	FUTURES: Change +0.10 +0.10 +0.10 D OPPOSITE	S (MATIF) FI 10 High 10 12228 121.03 NS (MATIF) Jun 2 50 1.85 1.33 0 B6	Low 121.8 121.8 120.7 Apr 0.10 0.19 0.39 0.77	116.3 21.8 2 19 	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	108 109 Est. voi lotal. I EGU III EGU BON Mar Jun US III US TREAS Mar Jun Sep Japan III NOTIONAL	0-56 0-28 0-12 0-12 Caso 2954 Open 90.76 90.14 SURY BC Open 116-27 116-05 115-08	0-61 0-38 I Puls 2548. RES (MATH Sett price 90 06 90 06 OND FUTUN 115-16 114-30	1-17 0-57 Previous di Change +0.46 +0.46 RES: (CST) Change +0-01	1-44 1-1-21 2-1 1-21 2-1 2-1/2/3 open ire. 1,000 High 90.28 90.28 15100.000 3 High 116-22 116-08	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 115-26 115-09 114-24	1-42 2-11 2-51 Puls 24415 Est. vol. 2,822 566 Sec. vol. 30,545 233,805 137	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034
Mar Juni Mar Juni Strike Price 119 120 121 122 German	NAL FRENC Cpen 122 10 122.10 120.80 FERM FREI Apr Apr 0 66 0.27	Soft proced 121.90 121.90 121.90 120.62 120.62 WCH BOMI	FUTURE: - Chang - 40 16 - 40 10 - 0 1	S (MATIF) FI 10 High 10 12228 121.03 NS (MATIF) Jun 2 50 1.85 1.33 0 B6	Apr 0.10 0.19 0.39 0.77	2 116.0 21.8 2 19 2 19 0.26 0.74 1 15	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	108 109 Est. voi lotal. I EGU III EGU BON Mar Jun US III US TREAS Mar Jun Sep Japan III NOTIONAL	0-56 0-28 0-12 0-12 Caso 2954 Open 90.76 90.14 SURY BC Open 116-27 116-05 115-08	0-61 0-38 1 Puls 2548. RES (MATE 90 60 90 06 90 06 116-03 115-18 114-30	1-17 0-57 Previous di Change +0.46 +0.46 RES: (CST) Change +0-01	1-44 1-1-21 2-1 1-21 2-1 2-1/2/3 open ire. 1,000 High 90.28 90.28 15100.000 3 High 116-22 116-08	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 115-26 115-09 114-24	1-42 2-11 2-51 Puls 24415 Est. vol. 2,822 566 Sec. vol. 30,545 233,805 137	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034
Mar Juni Mar Juni Strike Price 119 120 121 122 German	NAL FRENC Cpen 122 10 122.10 120.90 FERM FREI Apr 0 66 0.27 0 Cala 24.31	Sett BOND  Sett price: 121.96 121.92 120.62 120.62 120.62 120.63 10 10 10 10 10 10 10 10 10 10 10 10 10	FUTURE:  - Chang - 40 166 - 40 100 - 40	S (MATIF) FI 16 122.26 10 122.26 10 121.00 NS (MATIF) Jun 2 50 1.86 1.33 0 86 1.00s day's cs	Apr 0.10 0.19 0.39 0.77	2 116. 2 21.8 2 19 2 19 2 19 0.74 1 15 3 131.005	759 78 7	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	108 109 Est voi lotal.  EGU IL ECU BON  Mar Jun  US II US TREAS  Mar Jun  Sep  Japan  II NOTIONAL	0-56 0-28 0-12 0-12 Caso 2954 Open 90.76 90.14 SURY BC Open 116-27 116-05 115-08	0-61 0-38 I Puls 2548. RES (MATH Sett price 90 06 90 06 OND FUTUN 115-16 114-30	1-17 0-57 Previous di Change +0.46 +0.46 RES: (CST) Change +0-01	1-44 1-1-21 2-1 1-21 2-1 2-1/2/3 open ire. 1,000 High 90.28 90.28 15100.000 3 High 116-22 116-08	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 115-26 115-09 114-24	1-42 2-11 2-51 Puls 24415 Est. vol. 2,822 566 Sec. vol. 30,545 233,805 137	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034
Mar Jun Mar Jun Mar Jun Mar Jun Mar Jun Mar Mar Jun Mar	ANAL FRENC Cpen 122:10 120:20 120:90 FERM FREI App. 0 66:02:00 0 66:02:30 0 66:02:30 0 70:00 0	Soft prices  Soft prices  121 96  121.82  120 62  120	FUTURE: Chang 40 16 -0.10 -0 19 D OPPORT  LLS 10 60 All L. Pres FUTURE:	S (MATIF) FI  JOHN S (MATIF)  2 50  1.33  0 86  1.33  0 86  S (LIFFE) 0  High	Low 121.8 121.8 120.7 12	2 116. 2 21.8 2 19 	759 78 7 Puts 1	123,658 33,496 2,395 Jun 0 50 0 72 1,04 1,45 	108 109 Est voi lotal.  EGU IL ECU BON  Mar Jun  US II US TREAS  Mar Jun  Sep  Japan  II NOTIONAL	0-56 0-28 0-12 0-12 Caso 2954 D PUTUI Open 90.76 90.14 SURY BC Open 116-21 116-05 115-08	0-61 0-38 I Puls 2548. RES (MATH 90 60 90 06 DND FUTUN 115-16 114-30 TERM JAI	1-17 0-57 Previous di Change +0.46 +0.46 RES: (CST) Change +0-01	1-44 1-1-21 2-4 2-4 3-5 cpen let. 1,000 High 90.88 90.28 15100.000 3 High 116-22 115-08 115-08 High High	22 1-55 06 2-32 Calls 36939 Low 90.50 90.02 2nds of 100 Low 115-26 115-09 114-24	1-42 2-11 2-51 2-51 Puls 24415 Est. vol. 2,822 566 Sec. vol. 30,545 233,805 137	2-52 3-26 4-03 Open in 7,808 1,939 Open in 121,837 263,094 14,359
Mar Juni Mar Juni Strike Price 119 120 121 122 German	NAL FRENC Cpen 122 10 122.10 120.90 FERM FREI Apr 0 66 0.27 0 Cala 24.31	Sett BOND  Sett price: 121.96 121.92 120.62 120.62 120.62 120.63 10 10 10 10 10 10 10 10 10 10 10 10 10	FUTURE:  - Chang - 40 166 - 40 100 - 40	S (MATIF) FF   121.20   121.00	Apr 0.10 0.19 0.39 0.77	2 116. 2 21.8 2 19 2 19 2 19 0.74 1 15 3 131.005	759 78 7 Puts 1	123,658 33,496 2,395 Jun 0 50 0 72 1.04 1.45	Mar Jun Sep Japan Inference You	0-56 0-28 0-12 0-12 Case 2954 D FUTUI Open 90.76 90.14 SURY BC 116-05 115-08	0-61 0-38 I Puls 2548. RES (MATH 90 60 90 06 DND FUTUN 115-16 114-30 TERM JAI	1-17 0-57 Previous di Change +0.46 +0.46 RES: (CST) Change +0-01	1-44 1-1-21 2-4 1-21	22 1-55 06 2-32 Calls 36939  Low 90.50 90.02  2nds of 100  Low 115-26 115-09 114-24	1-42 2-11 2-51 Puls 24415 Est. vol. 2,822 566 Sec. vol. 30,545 233,805 137	2-52 3-26 4-03 Open in 7,809 1,939 Open in 121,837 263,034 14,359

Notes	int '	Ped Ped	Prico E	+ or -	_ 52 v	icok .	Notes	<u>m</u> ,	Neld - Fed	Price E -	• ar -	_ 52 t	LOW	Notes	₹ĬĬ ¥1	7664 _ (2) Price	£ +0r-	_ 52 High	week . Lo
rts" (Lives up to Fine Y		٠					Treas 8 Type 2005.8\$ .	811	7.78	10455	7	108()	93[2						
15405 19941	1503	5 94	10133		105	1011	1. cm 1 5 km 1 8 b 2 bb	167	781	9.		1012	3473	200 96	1.53	0.86 21 279 11	肾 —	2167	204
13'400 199622 _	1307 374	5.86 5.85	107}	- 1	106,4	10313	Treas 7 kpc 2006##	782	787	391°44	_14	1034	90,5	42-pc 98##(135.6)		279 11		1133	103
rsen 100c 1996 13'40c 199'44	12.47	5.85	1DF 37		1091	1061	Treas 8pc 2002-011	7.34	7 90	100%	-0	104)	9433	21200 03	3.03 3.20	353 17 359 17	ar I	1807, 178,	16
100-10-1997	10 08	5 87	104,2		10513	104.	Treas 11 Apr. 2003-7	9.65	762	121 %	-1	155	114	1 mg 10444 (135.6)	3.24 3.35	360 11:	4 +1	. 116t <i>i</i>	10
Cm /cc 189771	6 91	5 NO	1014	٠	1015	171	Treas 812pc 2007 ##	E 14	7.91	104 3	-14	10815	95.3	25c 76 169 59	3.35	362 18		118:3 185[5	16
€ kax 1997##	8.43	665	103%		104.,	10033	Trans 131 <sub>20</sub> c 3004-8	10 05	7.69	1341	-3	13213	1272	2½pc '09 (78 8) 2½pc '11 [74 6]	3 45 3 49	3.63 167 3.70 16	43 +3	107	
15pc 1997	1320	5.14	11373		11.14	113,	Trees 9pc 2008 ##	8.32	7 96	108,		112]}	10212		3 59 3 54	3.70 10	H H	173	15
9%pc 1936	9 19	6 27	105%		10.	10313	Treas Bor 2009	8.00	8.00	9921		1047	9474	2130 16 81 6	357	374 14	i = 1	155	13
74pc \$930##	7 13	6.35	10133		102	961	Treas 6 1/4pc 2010	742	8.09	84.3	-7	88.	301 <sub>4</sub>	Z150c 72083.0i	361	3.76 14	الآء الآء	1524 1464	iš
64-00 1995 <del>-98</del> # .	673	6.50	100.		100,	9.,					-72	0014	D0-4	2/2007/44 (9/ 7)	3.61	374 11	'll ⊷.	120	105
15i-oc 9841 12nc 1998	17.87 10.61	6.55 6.61	120½ 113¼	- 1	124% 114%	1201								41-pc 30##(135 1)	3.62	3,75   115	G +h	130	10
1995 1999# . 1995 1999# .	B.36	667	1074	74	08	1021								Prospective real redent	otion n	ate on pro	yected i	nflation	of (
Filto Rate 1993	-		(O. d		10033	89								10% and (2) 5%. (b) Fe	मं स्थापह	parenthe	es show	/ RPIb	250 T
12400 1397	10 66	G 76	11123		1161	4	Over Affines Years							maering he 9 months p	rior to k	asue) and	nave ber	भा अवीव	sted
101:00:1989	949	675	110()	~-	1		Com 90c Ln 2011 tt	8.35	8 10	10743	_11	11252	1021	reflect rebasing of RPI factor 3.945 RPI for Ji	to 100	in Febr	ary 1987	/. Com	rerak
6pc 1999 # .	6.15	R.79	9.		7017	501	Towas Sec 201211	8.33	811	108.		1132	100.5	150.2	Tue 183	33: 1-3 B	mo for .	ISLIBITY	199
crasan 1014pc 1309	9.75	6 6C	110]}		11245	105	Treas 51-rec 2008-1222 .	696		734:4	7.	824	73	.302					
20: T000##	8 41	0.9G	107		10852	101	Treat Spc 201324	809	812	985		103[2	94,2						
1290 2000	10,66	7 00 5 45	12143 1154		124)		Treas 7 'sac 2012-1511'.	303	8 13	951			3410	Other Fixed h	-				
14pc 1938-1 80c 200024	12 14 7.71	703	10312		1174							1011		ADIC! LWGG 11	itei e	-36			
996 rwwii - ,	7.71	. 43	10016	3		2. 4	Treas 8pg 2015	8.00	B.11	98-2		1044	9411						
							Treas &4.pc 2017##	826	8.16	105		1111	101₫				_	521	
							Each 12oc 2013-17	8.90	823	134		1415	123	Notes	神	Red Pric	1E+0r-	High	ما
							Treas 8pc 2021	E 06	807	99,2	-43	997	9.1	Astes Dev 1014pc 2009	8.92	B34 114		. 120	108
o Filtres Years														B ham 1112pc 2012	9.39	8.89 122	12		
10xx 2001	8.96	7.1B	1115	-5	114	105]}								traixed Cap 8/2pe 10	8.04	- 105			
7ac 2301 ±	708	7.24	30.2		1017	915								9pc Cap 1996	266	- 1	04		180
94cc 2007	872	7 41	1117		114	104%								13pc '97-2	11.72	110			1
Sac 200302	7.79	7 50	TOTAL	٦ĺ	10513		Hedated							Hydro Quebec 15pc 2011. Leeds 13J2pc 2006	10.27 10.25	9.38 1 - 131	46	. 15433 . 1354 <sub>2</sub>	140
		7.561								48.							*		

Opto 5 years(1)		90.90	+0.0	6	190.00	3.10 U.		o yrs	2.5		3.72	3.95		3.52	3.52	3.76		
7 Over 5 years (11) 8 All stocks (12)		85.22 85.35	+0.0		185.06 185.19	1.14 DJ 1,18 DJ	63 Over	o yrs	3.1	12	3.72	3.30		3.32	3.32	3.70		
											<b></b>							
werage gross recempt	acan yreigs	3re snow	M 300W0	Contro	u paude.	Low- (%-7%%; Medium	C 498-1(#496;	Hight 1	THE ATTER	348T. T	PHE 708	41. YED TOO	TO CASE.					
FT FIXED IN	TEDE	et in						GII T	FD/	ED:	ACT	TVITY	INDIC	23				
LI LINED III						00 V 15-be		GIL I	EU	محد	AU.				<u> </u>	Feb 28	F-1	
	MAIL 2	MAGE 4	IMBE 1	790	OF PEO	28 Yrago High*	FOM.					Mar 4	Mar 1	Feb 2	29 1	80 50		27
ovt. Secs. (UK)								Güt Ed	ged ba	rgalne		106.1	72.0	104.	8	108.5		3.7
						1 1 <b>08.77 115.23</b> 1		5-day a				97.0	89.9	102.		102.1		2.4
1995/96. Governme	re Secund	ва рідрі з	nce comp	danor.	127.40 (9	/1/35), low 49.18 (3/1/75)	). Fixed inter	est high s	alinea eon	<b>PRIO</b>	t 133.8	7 (21/1/94) ,	low 50.53	(3/1/75).Ba	s#8 100:	Governm	vent Secu	मधिक १५
3/25 and Posed Interes	st 1928. St	ERCHVITY	indices re	based	1974.													
																		-
								·	-									
FT/ISMA INT	EFINA	TION	al bo	OND	SEL	MCE												
REGO BLE ALE CHERY LAFE					•	e secondary market, Lat	•											-1
	lasues	d Bid	Offer	Chg.	Yield		issued		Offer	Chg.	Yield			155	Jed E	M O	ler Chg	, Ylek
s. Dollar Straigh	13					Sweden 8 97	2500	10612	10553		3.88	Althou Not	Transactor R (	03 E 1	000 96	7.	<del>-</del> 00	802
bey Natl Treasury 61 <sub>2</sub> (		00 10	1 1014	_4	5.32	Linsed Kingdom 74 97	5500	105%	105	ᅫ	3.68							633
Armeo Banak 7 <sup>1</sup> 4 05 .					6.66	Volksmanen Intl Fin 7 (G)	1000	103	10314	٠	6.46	British Lan	d 8% 23 €		150 90	و يد	73, J <sub>2</sub>	
xan Dew Bik 7-⅓ 23	5	00 10	2 10212	ᆚ	7.20	World Bank 0 15	2000	29%	293		6.43	Denmark 6	3.98 £		900 1	00 10		6.72
erta Province 7% 98	10	00 104	105	ᅸ	5.64	World Bank 0 15 World Bank 5% 03	3000	99	991	ᅽ	6.04	BB 803 P		1	000 100		1 <sup>1</sup> 2 - <sup>1</sup> 4	
an Dev Bank 64, 05	7	50 98 <sup>3</sup>	99%	ᅸ	6.38					٠				1055				
ria 8½ 00	4	00 109 <sup>1</sup>	a 1059√s			SWISS FRANC STRAIG						Hanson 10	<u> </u>		50G 105	· 10:		6.72
en-Wuert L-Fin 81 <sub>8</sub> 0	10 10	90 107 <sup>1</sup>	108	-4	5.84	Asian Der Bank 0 16	500	35 <sup>1</sup> 2	355	44	5.34	HSBC Hold	ings 11.69 0	25	153 116	A 116		B.29
Ned Gemeenten 7 B					5.68	Austria 4 <sup>1</sup> 2 00	1000	105 4	105 <sup>3</sup> 8	والب	3.06	fish 10k 1	4 Č		ann 1	11 111	12 -18	9.22
Verainstak 8 <sup>1</sup> e 00	5	00 107	8 107 <u>%</u>		5.67	Council Europe 44, 98	250	104	10438	-	2.62	Japan Dev	B4.700€.		200 99	A, gr	ياد يٍاو	7.18
um 51 <sub>2</sub> 03 h Columbia 73 <sub>4</sub> 02 _	10	00 95 <sup>1</sup>	2 95%		6.25	Desmark 4 <sup>1</sup> 4 99 EIS 3 <sup>1</sup> 4 99	1000	1043	104]2		294	Land Secs	9 <sup>1</sup> 2 07 £	:	200 103	136 106	رِّات يَهْا	. 8.93
Columba 7% 02	5	00 108 <u>1</u>	a 1081a	4	6.14	EB 3½ 99	1000	10314	1033		2.57	Ontano 11 <sup>3</sup>	£ ان و	·	100 113	Pg 113	7કે –ાં	7.70
1 Gas () 21	15	00 145	B 15		776	BB 6% 04	300	1134	11312	44	4.83	Powerger:	54 03 £		250 103	100		820
da 6 <sup>1</sup> 3 05 da 6 <sup>1</sup> 2 97	15	00 100	1003		6.44	Finland 7 <sup>1</sup> s 99	300	11212	1134		3.48	Severn Tre	11 <sup>1</sup> 2 99 £	·	150 111	~ 172	14 -18	7.34
612 97	20	00 1013	10112		5.38	losiand 7% 00	100	113%	114	_	4.14	Tokun Flan	Power 11 ft	16 .	150 117	i% 114		7.57
Kong Fin 5½ 98	5	00 971			6.74	inter Amer Day 44; 03	600	10322	1037	+14	4.19	TONZ Fin 9	14 02 NGS .	\$	75 105	4 106	¥4 –12	8.14
6 <sup>1</sup> 2 04	10	00 963		75	7.23	Ontario 6¾ 03 Quebec Hydro 5 08	400	1104	110 <sup>1</sup> 2	μlg	4.49	World Bank	k 12 <sup>1</sup> 2 97 N2	·	250 105	<sup>1</sup> g 105		867
Foncier 942 99	3	00 11		-4	5.74	Ouebec Hydro 5 08	100	100	101		5.00	Credit Loca	1601 <del>FF</del> r.	71	100 89	Pa, 1	ன் ⊸த்	6.05
n 54, 88	10	00 1004			5.41	5NCF 7 04			71712		4.56			FFr 30			μ <sub>2</sub> – μ <sub>2</sub>	
lapan Railway 6% 04	٠ ي	00 101 <sup>1</sup>		1.		Sweden 43, 03			1031		427	SACE 84:	87 FF+	4	DOG 104	<b>%</b> 105	դե դե	4,60
04		00 985 00 105		ᅸ		World Bank 0.21		2614	26%		5.34			_				
le France 9 98				-8	5.42 5.52	World Bank 7 01	600	1744	115 <sup>1</sup> 4	+14	369	FLOATING	RATE NOT				_	
Bank Japon 802				-2		YEN STRAIGHTS										Bid	Clien	Ccps
Des Com Black	31	00 1087 20 1083	10812	-3		Belgium 5 59	75000	110%	110%		2.05	Abbey Ned	Treesury -A	99 1º	000	<b>39.83</b>	99.90	5.7900
Dev Corp 9) <sub>2</sub> 98 _ Captal 0 04	. 18	70 P	5812		6.47	Credit Foncier 43, 02	7500	1007	10252	şig	434	Bankemeric	2 L 99		750	99.82	20.02	58375
ome Loan 71 99	150	n 1045	1047	42	5.68	E8 64 00	10000	1174	117%	148	214	Canada -1	99		000 9	9.50	99.56	50547
Net Mort 7.40 04	150	0 107	107-4	-Je	6.33	Ex-lim Bank Japan 4/3 03	106000	108%	108%		308	CCCE 0 05	Ecu		200 9	9.46	99.63	4,6250
				يَد	543	Inter Amer Deu 71, 00	3000	120%	12012	وله	215	Commerchi	k OS Fin 🧦	26	750 9	99.70	99.79	5.1250
67, 97 sor Credit 64, 98 .	150	00 1014		ᆤ	5.72	Inter Amer Dev 7 <sup>1</sup> 4, 00 Italy 3 <sup>1</sup> 2 01	300000	1035	103-k	궃	278	Credit Lyon	nais & 00 .		300	77.8B	98.24	5,5000
Mals 0 13	100	0 247		ų,	6.30	Raly 5 04	200000	11112	1113		3.45	Credit Lyon	nes 0.30 98	#	250 10		100.13	5.7414
xan Fin 73,97 .	3	102 <sup>3</sup> ,		J,	5.60	Jacob Day Bk 5 99	100000	1105	110%	ᆂ	1.88	Denmark -	z 97	16	2000 \$		100.04	5.6875
جودات <del>م</del>	65	en oe	العد د	•	5,64	Japan Dev Bk 6½ 01	120000	120	120 <sup>1</sup> g	μů	258	Dreadner Fi	nance 🚣 98	DM 10	200 10		100.08	3,4688
ner Dev 7½ (15 📖	50	D 1073	1075	ᆂ	6.40	SNOF 6% 00	30000	2173	117%	- •	216	FED NAT N	KORT -18 00	10	9000	9.63	99.70	5,6250
anca 514 90	<del>5</del>	Y) QQL	994	-	5.44	SNOF 6½ 00	125000	1164	116 <sup>1</sup> 2		2.79	Fecto del Si	EL 0.1097 .		<b>2</b> 0 10		100.23	5.7500
@	200	D 97	98		6.48	Sweden 45, 98	150000	10672	10612		123	Finand 08	<u> </u>	10	100 10		100.21	5,4492
<b>2</b>	35	10 92°1;	22%	4	7,57	World Bank 514 02	250000	114%	11412	ولد	267	Financi	99	19	50C S	9.75	99.81	5.1875
Dev 51k 8³g 01 Bec Power 6³g 03 .	5	110 <sup>1</sup>	1103g	-4	5.95			-	_	-		Will Blank in	499		200 10		100.27	5,5000
esc Power Big 03 .	135	N 985	9873	护	671	OTHER STRAIGHTS						16 Kd .		1	MG 8		100.00	5.5625
Mara Bec 74, 02	100	ม 1057รู	106	,	6.27	Fritand 8 04 (Fr	5000	107	108		6.88	meny *4,865 . IKD 20⊷4⊷	ا ما بسيالا	4, 98 10	AUG 10		100.15	5.9375
y 7 <sup>1</sup> 4 97 o 7 <sup>1</sup> 8 03		ມ 101∛ງ ນີ້າ	102 <sup>1</sup> 3	- <del>1</del> 9	5.44	Germance Lux 9 <sup>1</sup> 3 99 LF	r 1000	10812			5.03	Liver Design	- Dome Co-	48 950 10 D 6	ANU E	992	99.99 B3.33	5.6875 5.3500
178 US	30	N 1024	10612	4	6.04 6.06	NB Dout included 8½ 03 ABN Anno 6½ 00 Fl	<u>3300</u> ـــ س	107	108		7.16	Mahasia X		· ;	AU 8	242 867	63.33 99.89	60000
4 5% 03		20 er4	973	7	570	Bank Ned Gemeenten 7 0	40 450	7044,	104 <sup>7</sup> 2 104 <sup>7</sup> 2		5.43	New Zealon	d-Je 99	{	m s		99.98	54806
c Hydro 94, 98	15	0 1085		,I.,	5.94	Bell Canada 10°s 99 CS	3 FI 1300	1111			6.19	Nova Scotte	3.99		ממו		100.03	5.4883
Prov 3 98	20			7	586	Bnash Columbia 7%, 03 C	13V 8 1290	102%	1117a 1007a		6.75 7.45	Ontario 0 96		2			99.95	52500
99	20			ᅸ		Carracta Mag & Hsg 84, 99			105%		650	Rente 0 98					99.90	5,6250
96	15			يّد		EBS 101/8 98 CS	130	1074	1085		583	State Bk Wo	toria 0.05 99		25 9		100.12	56672
				٠,		Elac de France 93, 99 CS			110		6.56	Sweden 0 9		15			100.07	5.2695
n 6½ 03	200	X) 102		-		KRW Int Fin 10 Ct C\$		112	11212	ᅸ	7.07	Sweden -1 <sub>8</sub>	0:	a	100 9	9.61	99.89	5.1758
sea Valley 6 00	100	1007	101	-14	5.86	läppon Tel Tel 10 <sup>1</sup> 4 99 CS	200		1115	•	6.63							
ee Valley 64 05			101			Ontario 8 03 CS	1500	103 <sup>1</sup> 2	1034		7.49	CONVEKT	BLE BONDS	5				
Sec Power 61/2 03	100	D 98%			6.31	Ontario Hydro 10% 99 CS	500	1113	1124		647				Coope.			
				4-	5.36	Oslar Kontrollbank 104 99	CS 150	111	11112		651			-	Price	Bld	Offer	Prem.
	300			-14	6.02	Ouebec Hydro 7 04 CS	1000	95%	95 <sup>1</sup> 4	44	7.96	É Prence	84 08 E _	436	64	1005	1014	+67.27
Kingdom 74,02			10112		6.33	Ouebec Prov 10 <sup>1</sup> 2 96 CS . Council Europe 9 01 Ecu .	200		110lg		8.47		de 71 <sub>2</sub> 00		1.37			+10.47
Kingdom 74,02 Bank 6/3 05	150					avend Renna 9 M Eq.	1100	111	1114	44	6.61	Grand Meter						
Kingdom 74, 02 Bank 6/g 05	150 150			ᇰ	5.64								4440010-7	20 710	4.37	1124	113%	+72.17
Kingdom 74, 02 Bank 6 <sup>2</sup> 3 05 Bank 8 <sup>3</sup> 3 99	150			身		Credit Foncier 8% 04 Ecu	1000	98%	99 <sup>1</sup> 4	+3•	8.50	Hanson 91 <sub>2</sub>	06 8	710 500	4.37 2.48	112 <b>7</b> 100	1133₄ 1005≘	+25.17 +30.18
S Kingdom 74, 02   Bank 6 <sup>3</sup> 3 05   Besi. 8 <sup>3</sup> 3 99   SCHE MARK STRA	150 NGKTS	C 109	10918	•		Credit Foncier 8% 04 Ecu	1000	98% 109% 100%	1093	7° 7°	8.58 8.58	Hanson 91 <sub>2</sub> Hanson Arm	06 £	500 420	4.37 2.48 23.5375	100	100°z	
d Kingdom 74, 02   Bank 8½ 05   Benk 8½ 99   SCHE MARK STRA   10 24	150 NGHTS 200	0 109	81 <sup>1</sup> 8	٠.	7.28	Credit Foncier 8 <sup>3</sup> g 04 Ecu Denimark 8 <sup>1</sup> 2 02 Ecu EC 6 00 Ecu	1000 1000 1100	109 <sup>1</sup> 2 100 <sup>1</sup> 4	1093 <sub>1</sub> 1001 <sub>2</sub>		6.56 5.93	Hanson 9½ Hanson Ara Hong Kong	06 g	500 420	248 29,5375 31,05	100	100°g 82¼ 88	+30.18 +70.74 -12.52
d Kingdom 74, 02 I Bank 6 <sup>3</sup> 3 05 I Benk 6 <sup>3</sup> 3 99 ISCHE MARK STRA II 6 <sup>3</sup> 2 34 In-Wuert L-Fironce 6		0 109 0 90% 0 104	109 <sup>1</sup> q 91 <sup>1</sup> q 104 <sup>1</sup> 6	ᄺ	7.28 4.61	Credit Foncier 8½ 04 Ecu Derimark 8½ 02 Ecu EC 6 00 Ecu EB 10 01 Ecu	1000 1000 1100	109 <sup>1</sup> 2 100 <sup>1</sup> 4 115	1093 <sub>1</sub> 1003 <sub>2</sub> 1153 <sub>4</sub>	44	6.56 5.83 6.33	Hanson 9½ Hanson Are Hong Kong Land Seca 6	06 g mca 2.39 0t Land 4 0t 13 02 g	500 420 410 84	2.48 23.5375 31.05 6.72	100 81 ½ 87¼ 97¼	100% 82 k 88 98%	+30.18 +70.74
d Kingdom 74, 02 d Bank 69; 05 d Bank 89; 99 7SCHE MARK STRA 10 59; 24 n-West L-France 6 it Fonce 74; 03	150 NGKTS 200 199 200 200	0 109 0 90% 0 104 0 87%	109 <sup>1</sup> 8 91 <sup>1</sup> 8 10 <sup>4</sup> 16 38	٠.	728 4.61 7.68	Credit Foncier 8½ 04 Ecu Denmark 8½ 02 Ecu EC 6 00 Ecu EB 10 01 Ecu Ferro del Stat 10½ 98 Ecu	1000 1000 1100 1150	109 <sup>1</sup> 2 100 <sup>1</sup> 4 115 108 <sup>1</sup> 8	1093 <sub>1</sub> 1003 <sub>2</sub> 1153 <sub>4</sub> 1085 <sub>8</sub>		8.56 5.83 6.33 5.35	Hanson 9½ Hanson Aron Hong Kong Land Seca 6 Lasmo 7½, 6	06 g mca 2.39 0t Land 4 0t Pa 02 g 15 g	500 420 410 84 90	248 29,5375 31,05 6,72 5,54	100 81 ½ 87 ¼ 97 ¼ 91	85,1 88 85,1 100,2	+30.18 +70.74 -12.52 +6.28
nd Kingdom 74, 02 d Bank 6 <sup>3</sup> g 05 d Bank 6 <sup>3</sup> g 99 17SCHE MARK STRA ma 6 <sup>1</sup> g 24	UGHTS 200 199 — 200 ——— 200	0 109 0 90% 0 104 0 97% 0 104	109 <sup>1</sup> 8 91 <sup>1</sup> 8 10 <sup>4</sup> 16 38 10 <sup>4</sup> 14	ᄺ	7.28 4.61 7.68 4.10	Credit Foncier 8 <sup>3</sup> g 04 Ecu Dermark 8 <sup>1</sup> g 02 Ecu ————————————————————————————————————	1000 1000 1100 1150 1500	109 <sup>1</sup> 2 100 <sup>1</sup> 4 115 108 <sup>1</sup> 8 115 <sup>1</sup> 6	1093 <sub>1</sub> 1001 <sub>2</sub> 1151 <sub>4</sub> 1085 <sub>8</sub> 1151 <sub>8</sub>	+14 -18	6.56 5.83 6.33 5.35 6.41	Hanson 9½ Hanson Aron Hong Nong Land Secs 6 Lasmo 7½, 0 Mitsul Bank	06 g mca 2.39 0t Lanc 4 0t F4 02 E 6 E 25 03	500 420 84 90	2.48 29.5375 31.05 6.72 5.54 2332.6	100 81 <sup>3</sup> 8 87 <sup>1</sup> 4 97 <sup>1</sup> 4 91 84 <sup>3</sup> 8	100% 821, 88 98% 921, 921, 86	+30.18 +70.74 -12.52 +6.28 +36.53
ed Kingdom 74, 02 id Bank 83, 95 id Bank 83, 99 id Bank 83, 99 id Bank 83, 99 in 63, 24 en-Went L-France 6 & France 74, 03 in 74, 98 is Finance 65, 03 is Finance 65, 03 is Finance 65, 03	UGHTS 200 199 — 200 ——— 200 ——— 200	0 90% 0 90% 0 104 0 104 0 106%	109 <sup>1</sup> g 91 <sup>1</sup> g 104 <sup>1</sup> g 104 <sup>2</sup> g 104 <sup>2</sup> g	ᄺ	728 4.61 7.68 4.10 6.32	Credit Fonder 8½ 04 Ecu Detmark 8½ 02 Ecu EC 600 Ecu EC 600 Ecu EC 701 Ecu EC 707 Ecu EC 707 Ecu EC 707 Ecu EC 707 Ecu	1000 1000 1100 1150 150 1000	109 <sup>1</sup> 2 100 <sup>1</sup> 4 115 108 <sup>1</sup> 4 115 <sup>1</sup> 4 171 <sup>2</sup> 4	1093 <sub>1</sub> 1001 <sub>2</sub> 1151 <sub>4</sub> 1085 <sub>8</sub> 1155 <sub>8</sub> 112	+14 -18 +14	6.56 5.83 6.33 5.35 6.41 6.26	Harson 9½ Harson Aron Hong Kong Land Seca 6 Lasmo 7½, 0 Missal Bank Mount Inc Se	06 0	507 420 410 84 90 200	248 23,5375 31,05 6,72 5,54 2332,6 2,263	100 81½ 87¼ 97¼ 91 842 965	86 86 88 88 88 88 88 88 88 88 88 88 88 8	+30,18 +70,74 -12,52 +6,25 +36,53 +31,31
ond Besi. 6 <sup>3</sup> g 99 Butsche Mark Stra astro 6 <sup>1</sup> g 24	UGHTS 200 199 — 200 ——— 200 ——— 200	0 109 0 90% 0 104 0 104 0 105% 0 105%	109 <sup>1</sup> 8 91 <sup>1</sup> 8 10 <sup>4</sup> 16 38 10 <sup>4</sup> 14	나 나 나	728 4.61 7.68 4.10 6.32 6.44	Credit Foncier 8 <sup>3</sup> g 04 Ecu Dermark 8 <sup>1</sup> g 02 Ecu ————————————————————————————————————	1000 1000 1100 1150 150 1000 1000 1000	109 <sup>1</sup> 2 100 <sup>1</sup> 4 115 108 <sup>1</sup> 8 115 <sup>1</sup> 6	1093 <sub>1</sub> 1001 <sub>2</sub> 1151 <sub>4</sub> 1085 <sub>8</sub> 1151 <sub>8</sub>	+4 +4 +4 +4	6.56 5.83 6.33 5.35 6.41 6.25 8.22	Hanson 9½ Hanson Aron Hong Kong Land Seca 6 Lasmo 7½, 0 Missi Bank Mount Isa Fi Nail Power 6	06 £	507 420 410 84 90 200	2.48 22.6376 31.05 6.72 5.54 2332.6 2.263 4.33	100 81½ 87¼ 97¼ 91 842 95% 112%	100% 821, 88 98% 96 98% 113%	+30.18 +70.74 -12.52 +6.28 +36.53

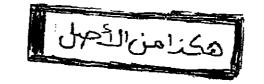


Table 1 Was a series

والمراجع والمراجع المعطان

Petrician Company

..... 5 T

20 × 20

MAR ADA : WINNING

#### MARKETS REPORT

## Dollar dawdles as markets seek fresh direction

By Philip Gawith

Currency markets had an uneventful day yesterday in the absence of any fresh developments or established trends to trade off.

if anything, the D-Mark had a slightly weaker bias, but for the most part currencies stayed within their recent After a period of interest the D.Mark."

The dollar finished in London at DM1.4789, from DM1.4758. Against the yen it closed at ¥105.125, from

The slightly weaker D-Mark helped stabilise the peseta. despite the continued weak performance of Spanish asset markets following the indecisive weekend election result. The peseta finished at Pia84.68 against the D-Mark, from Pias4.75. The lira was mable to continue its recent rally. and closed unchanged at L1,050 against the D-Mark.

Elsewhere in Europe the Swedish Riksbank cut the repo rate to 7.85 per cent, from 8.05 per cent . The krona finished marginally weaker against the

Sterling had an uneventful day, closing at DM2,2594, from DM2.2553. Against the dollar it closed at \$1.5278, from \$1.5282.

rate pessimism in Europe, the pendulum appears to be swing-ing back again. A key element of this picture will be the release today of the German unemployment data. Markets are braced for the worst, with expectations of a new unadjusted record in February. Meanwhile, fourth quarter GDP figures, due tomorrow, are expected to show the econ-

1.5295 1.5294 1.5265

1.2163 -0.0015 158 - 168 1.2177 1.2147 1.2149 1.4 1.2122 1.3 1.2003 1.3

omy shrinking slightly.

These data will encourage talk of a further cut in German interest rates, which prospect D-Mark, at SKr4.63, from is undermining the D-Mark Mr Adrian Cunningham, senior currency economist at UBS in London, said: "There is not so much independent high-yielding currency strength at the oment as antipathy towards

> He said the German currency was suffering from the perception that the economy was doing worse than the government would admit.

> least another three months before the market concluded that the German interest rate cycle had reached a trough.
>
> Mr Julian Jessop, economist at HSBC Markets in London. said it remained their view that there would be at least one more cut in interest rates. He said the most likely date for a decision would be the March

28 meeting of the Bundesbank

council. History suggests the

cut will be 50 basis points. Mr

105.8 108.1 109.1 84.0 109.3 110.1 68.4 97.6 74.5 108.1

0.36 0.17 0.06

He predicted it would be at Jessop points out that 57 of the last 60 discount rate cuts, going back to 1969, have been

the full half-point.

1.300 -

1.250 ~

1,200

1,150

have prevented the D-Mark slipping further has been the inability of the dollar to sustain its recovery. Economists at Deutsche Mor-

**CURRENCIES AND MONEY** 

gan Grenfell in London argue there are some observers who

that the dollar has a better believe it could fall below 6 per chance of moving higher cent. The Riksbank fuelled against the D-Mark, which has weak economic data to contend with, than the yen, which is supported by anticipated capi-

They point out that the bearing on capital flows: "If the government, as is now expected, accepts a share of future bank profits in lieu of a more significant up front cash contribution, this may help to mitigate some of the concerns...that banks would be forced to liquidate more overseas assets to cover their share

the financial year-end.

■ The cut in the Swedish repo rate was the fifth cut this year. in which time the rate has fallen from 8.91 per cent.

The consensus view among economists is that the rate will fall to around 6.5 per cent by the end of the year, although

Internet at http://www.cme.com/

optimism with a very bullish inflation report on Monday.

Mr Malcolm Barr, economist at Chemical Bank in London tal flows back into Japan at said the nervousness concerning the krona yesterday had been more to do with the road Jusen bail-out could have a haulage strike, and fears that it might escalate, than Riksbank policy.

He said the sedate perfor mance of the peseta, which traded only in a 34 basis point range, was indicative of the "It takes quite a lot of news to get the markets moving." In the past, he said, the ambiguous election result could have been expected to generate much more price action.

;	E OTH	IR CURRENCU	s
	Mar 5	1	\$
,	Czeck Ro	41.5331 - 41.5674	27.1920 - 27.2020
ì	Hungary	216.814 - 216.990	141.950 - 142.000
ı	200	4584.30 - 4582.20	3000.00 - 3000.00
•	Kernigat	0.4562 - 0.4567	0.2987 - 0.2989
	Poland	19254 - 3,9303	2,5700 - 2,5720
	Rossia	7368.50 - 7369.71	4822.00 - 4825.00

Werch 5	Over	One	Three	Sbs	One	Lomb-	Dis.	Re
	night	wouth	तायिक	entine.	year	Street.	epte:	16
Belgium	3&	3 <u>&amp;</u>	38	34	34	7.00	3.00	
week ago	36	34	34	32	34	7.00	3.00	
Талсе	4.	43	48	414	4%	3.90	-	5.
week ago	43	42	41	44	44	3.90	-	5.
Sermany .	34	35	3%	314	35	5.00	3,00	3.
week ago	3%	35	34	34	3.	5.00	3.00	3.
reland	51	5%	54	51/6	51	-	-	6.
week ago	5 <b>4</b>	51%	5%	5%	52	-	-	6.
taly	9%	9%	914	9%	914	_	9.00	9,
week ago	107	9%	9%	9%	94	-	9.00	9.
Hothor(sands.	34	3%	3%	31/4	314	_	3.00	3.
week ago	32	34	314	31/2	314	-	3.00	3.
Switzerland	12	13	12	18	12	5.00	1.50	
week #go	1%	17	11/2	10	13a	5.00	1.50	
J\$	5%	5%	52	514	5%	-	5.00	
week ago	53	514	53	52	5%	-	5.00	
lapan	é	32	3	3	季	-	0.50	
week ago	4	3	3		4_		0.50	
SLIBOR FT Lo	ndon							
nterbenk Floing	-	54	514	5 <u>2</u> 5 <u>2</u>	54	-	-	
week ago	-	58	5		5	-	-	
JS Dollar CDs	_	4.83	4.88	4.89	4.94	-	-	
week ago	_	4.83	4.92	4.83	4.97	-	-	
CU Linked Ds	-	4료	41	42	40	-	-	
week ago	_	49	44	47	4星	-	-	
DR Linked Ds	_	3&	34	314	38	-	-	
Week ago LIBOR Interbent for	-	32	34	3%	3,	-	-	

**EURO CURRENCY INTEREST RATES** 

Mar 5	Short term	7 days notice	One	Three months	Six months	One year_
Belgian Franc	333 - 333	3년 - 3년	3월 - 3월	3월 - 3ఓ	313 - 32	315 - 311
Danish Krone	4 <sup>1</sup> 8 - 3 <sup>7</sup> 8	43 <sub>8</sub> - 11 <sub>8</sub>		413 - 42	415 - 42	418 - 413
D-Mark	3,6 - 3,6	33 <sup>9</sup> - 31°	3,3 - 3,3	3 <sup>3</sup> 8 - 3 <sup>1</sup> 4	33 - 33	3 <sup>3</sup> 8 - 3 <sup>3</sup> 4
Dutch Guilder	3 <sup>1</sup> 4 - 3 <sup>1</sup> 8	314 - 319		3층 - 3층	3 <u>4</u> - 3 <u>0</u>	3 <u>7</u> - 3 <u>7</u>
Franch Franc	416 - 416	4 <sup>1</sup> 8 - 4	44 - 46	4 <sup>1</sup> 4 - 4 <sup>1</sup> 8	4 <sup>3</sup> 8 - 4 <sup>1</sup> 4	412 - 426
Portuguese Esc		8 - 7H	B - 7設	712 - 73	7}} - 778	733 - 783
Spanish Peseta		8월 - 8월	8 <sup>5</sup> g - 8 <sup>1</sup> 2	8월 - 8월	833 - 843	8 <sup>1</sup> 2 - 8 <sup>1</sup> 8
Sterling	67a - 65⁄8	6 6.	6 <u>4</u> - 6 <u>3</u>	6. 6	6 <u>3</u> 5 · 5 <u>3</u> 1	6 6
Swiss Franc	2 - 179	1提 - 1法	1-jų - 1-jų	14 - 15	144 - 149	13 - 14
Can, Doter	5월 - 4분		514 - 516	514 - 516	54 54	54 - 54
US Dollar	5 <sup>1</sup> 4 - 5	516 - 516		5 516	54 - 52	54 - 54
itaflan Lira	1074 - 874			$9^{1}2 \cdot 9^{1}_{1}$	9,2 - 9,2	912 - 972
Yen	- A	U - 13	<u> </u>	ie - 1	5 <sub>8</sub> ~ 1 <sub>2</sub>	34 - 5 <sub>8</sub>
Asian SSing	16 - 16	1提、1提	2 - 178	214 - 214	24 - 24	24 - 25
Short term rates	ure call for the NITH PUBOR	US Dollar an	MATIF) Part	two days' no s interbenk	tica. offered rate (	(FFr5m)
_ (	Open Sett	price Char	nge High	wal	Est. vol	Open int.
Mer 9	<b>95.68</b> 95.	.66 +0.1	04 95.68	95.62	19,408	45,037
Jun (	35.68 95	.0+ 68.	02 95.71	95.63	15,939	59,486
Sep 6	95.69 95.	.66 +0.1	04 95.71	95.63	5,324	48,529
E THREE MC	MIN EURÓI	WARK Film	IRES (LIFEE	' DMI'm no	into of 100%	_

Open 96.70	95.66 95.88 95.66 EUROMARN Sett price	+0.04 +0.02 +0.04 FUTURE Change	95.68 95.71 95.71 8 (LIFFE)* !		19,408 15,939 5,324 68 of 100%	48,5
95.69 MORTH   Open 96.70	95.66 EUROMARN Seti price	+0.04	95.71 S (LIFFE) <u>-</u> !	95.83 3M1m poir	5,324	59,4 48,5
Open 98.70	EUROMARIA Seti price	FUTURE	s (LIFFE)- I	OM1m poir	<b></b>	
Open 96.70	Seti price				as of 100%	
96.70		Change				
			LINE I	Low	Est vol	Open
	96.68	-0.01	96.71	96.68	20110	1404
96.84	96.81	-0.01	96.85	98.77	44513	2047
98.76	96.71	-0.03	96.77	95.68	52736	1970
96.52	96.48	-0.02	96.55	96,45	53141	1641
HONTH	EUROLIKA I	PUTURES	(LIFFE)" L1	000m poin	ta of 100%	
Open	Sett price	Change	High	Low	Est. vol	Open
90.50	90.42	-	90.50	90.40	3832	332:
91.1D	90.98	-0.06	91.17	90.97	13721	338
91.48			91.49	91.25	3279	193
						137
MONTH:	EURIO SWIS	S FRANC	FUTURES	(LIFFE) SF	rim points	df 100
Ореп	Sett price	Change	High	Low	Est vol	Open
96.30	98.25	-0.03	98.30	98.19	4759	191
98.25	98.19	-0.05	98.26	98.16	8754	205
96.10	98.03	-0.06	98.15	98.00	3063	117
97.88	97.77	-0.06	97.88	97,77	975	824
HTMON	ECU FUTUR	ES (LIFFE)	Ecurim po	ints of 100	%	
Open	Sett price	Change	High	Low	Est. vol	Open
95.44	95.41	+0.01	95.44	95.36	423	675
95.59	95.52	-0.02	95.59	95.52	886	540
	95.46	-0.01	95.51	95.48	327	322
<b>95.32</b>	95.28	-	95.33	95.28	168	322
	96.52 MORTH: 1 Open 90.50 91.10 91.48 97.48 MORTH: 1 Open 98.25 98.10 98.25	96.52 95.48  NONTH EUROLISTA   Open Sett price 90.50 90.42 91.10 90.42 91.48 91.28 91.48 91.26 91.48 91.26 Open Sett price 98.30 98.25 98.10 98.03 97.88 97.77  NONTH ECU FUTUR Open Sett price 95.44 95.41 95.59 96.52 96.51 95.46 96.52 95.26	96.52 95.48 -0.02  MONTH EUROLISTA PUTURIES  Open Sett price Change 90.50 90.42 - 91.10 90.98 -0.06  91.48 91.29 -0.10  91.48 91.26 -0.08  MONTH EURO SWISS FRANC  Open Sett price Change 98.30 98.25 -0.03  98.25 98.19 -0.06  98.10 98.03 -0.06  97.88 97.77 -0.06  MONTH ECU FUTURIES (LIFFE)  Open Sett price Change 95.44 95.41 +0.01  95.59 96.52 -0.02  95.51 95.46 -0.01  95.52 95.28 -	96.52 96.48 -0.02 96.55  MONTH EUROLINA FUTURES (LIFFE) L1  Open Sett price Change High 90.50 90.42 - 90.50 91.10 90.98 -0.06 91.17 91.48 91.29 -0.10 91.49 91.48 91.26 -0.08 91.54  MONTH EURO SWISS FRANC FUTURES Open Sett price Change High 98.30 98.25 -0.03 98.20 98.25 98.18 -0.06 98.26 98.10 98.03 -0.06 98.26 98.10 98.03 -0.06 98.15 97.98 97.77 -0.06 97.88  MONTH ECU FUTURES (LIFFE) Ecurim po 95.44 95.41 +0.01 95.44 95.59 96.52 -0.02 95.59 95.51 95.46 -0.01 95.51 95.52 95.28 - 95.33	96.52 96.48 -0.02 96.55 96.45  MOSITH EUROLIKA FUTURES (LFFE) L1000m poin  Open Sett price Change High Low  90.50 90.42 - 90.50 90.40  91.10 90.98 -0.06 91.17 90.97  91.48 91.29 -0.10 91.49 91.25  91.48 91.36 -0.08 91.54 91.36  MOSITH EURO SWISS FRANC FUTURES (LFFE) SW  Open Sett price Change High Low  98.30 98.25 -0.03 98.30 98.19  98.25 98.18 -0.06 98.26 98.16  98.10 98.03 -0.06 98.15 98.00  97.98 97.77 -0.06 97.88 97.77  MONTH ECU FUTURES (LFFE) Ecurim points of 100  Open Sett price Change High Low  95.44 95.41 +0.01 95.44 95.36  95.59 95.52 -0.02 95.59 95.52  95.51 95.46 -0.01 95.51 95.48  95.31 95.28 - 95.33 95.28	96.52 96.48 -0.02 96.55 96.45 53141  MONTH EUROLINA FUTURES (LFFE) L1000m points of 100% Open Sett price Change High Low Est. vol 90.50 90.42 - 90.50 90.40 3682 91.10 90.98 -0.06 91.17 90.97 19721 91.48 91.28 -0.10 91.49 81.25 3279 91.48 91.36 -0.08 91.54 91.35 1354 91.48 91.36 -0.08 91.54 91.35 1354 91.36 91.36 9

0.05 0.18 0.35

http://www.simex.com.sq

0.15 0.20 0.27

0.22 0.27 0.33

9Fr) 30.3980 +0.066 890 -030 30.4550 30.2870 30.351 1.8 30.259 1.8 29.928 1.5 107.8					199					ALC.			
9Fr) 30.3960 +0.066 890 -030 30.4550 30.2870 0.7 5.7048 5.													_
No.	(Sch												
Fib) 4.5866 +0.0073 652 -667 5.0760 5.0598 5.0598 1.0 5.0563 0.8 5.042 0.5 108.8 109.4 14.789 +0.0073 785 -782 1.4825 1.4770 1.4768 1.7 1.4763 1.8 1.4556 1.6 109.5 1.4770 1.4768 1.7 1.4763 1.8 1.4556 1.6 109.5 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4	(BFr		+0.066	890 <b>- 03</b> 0			30.351	1.8	30.259	1.8	29,926	1.5	107.6
FFT 5.0850 +0.0073 852 - 667 5.0780 5.0589 5.0619 1.0 5.0863 0.8 5.042 0.5 108.E   (Dr) 241.305 -0.41 250 -380 243.260 241.030 242.88 -7.8 246.13 -80 260.805 -8.1 65.5   (Dr) 241.305 -0.41 250 -380 243.260 241.030 242.88 -7.8 246.13 -80 260.805 -8.1 65.5   (Dr) 241.305 -0.41 250 -380 243.260 241.030 242.88 -7.8 246.13 -80 260.805 -8.1 65.5   (Dr) 241.305 -0.0032 665 -711 1.5720 1.5675 1.5706 -0.2 1.5708 -0.1 1.5648 0.4 -1.	(DK							0.7		0.6	5.7206	-0.1	108.3
1.4789	(FM						4,5851	1.2	4.5766	1,1	4.5601	0.6	83.5
[Dr] 241.305	(FFr				5,0760	5.0598	5.0619	1.0	5.0563	0.8	5.042	0.5	108.B
(E) 1.5703 -0.0032 695 - 711	(DM	1.4789	+0.0031	785 - 792	1.4825	1.4770	1,4768	1.7	1.4723	1,6	1,4556	1.6	109.5
[L] 1552.62 +2.91 199 - 325 1554.94 1548.10 1558.97 -4.9 1570.72 -4.7 1621.62 -4.4 74.1 1273 30.3960 +0.066 890 - 030 30.4550 30.2870 30.344 2.1 30.256 1.8 29.951 1.5 107.8 (15) 1.55557 +0.0004 1552 -561 1.8598 1.6528 1.8526 2.2 1.6462 2.3 1.624 1.9 107.7 10	(Dr		-0.41	250 - 360	243-260	241.030	242.88	-7.8	245.13	-80	260 805	-8.1	65.5
LFY 30.3960 +0.066 890 - 030 30.4550 30.2870 30.344 2.1 30.256 1.8 29.951 1.5 107.8 (F) 1.6557 +0.0041 525 - 561 1.6598 1.6539 1.6526 2.2 1.6482 2.3 1.624 1.9 107.7 (K) 6.4376 +0.0115 338 - 413 6.4810 6.4071 6.4353 0.4 6.4271 0.7 6.4101 0.4 98.1 153.460 +0.16 390 - 530 153.770 153.340 153.835 -2.9 154.605 -3.0 158.21 -3.1 95.0 150.1 152.25 +0.16 200 - 250 125.420 124.930 125.825 -2.8 154.605 -3.0 158.21 -3.1 95.0 150.1 150	(IE	1.5703	-0.0032	695 - 711	1.5720	1.5675	1.5706	-0.2	1.5708	-0.1	7.5648	0:4	-
(F) 1.8557 +0.0041 552 - 561 1.8598 1.6539 1.8526 22 1.6462 23 1.624 1.9 107.7 18(1) 6.4378 +0.0115 338 - 413 6.4810 6.4871 6.4333 0.4 6.4271 0.7 6.4101 0.4 98.1 1521 133.460 +0.16 390 530 153.770 153.340 155.835 -2.9 154.605 -3.0 158.21 -3.1 95.0 125.225 +0.16 200 - 250 125.420 124.930 125.62 -3.8 126.355 -3.6 129.845 -3.7 81.0 125.22 +0.0169 434 - 495 6.8608 8.7800 8.8636 -3.0 6.893 -2.7 7.0305 -2.7 85.9 151 1.2021 +0.0006 017 -024 1.2050 1.2013 1.1985 3.6 1.1961 3.5 1.1678 2.9 113.0 151 1.2021 +0.0006 017 -024 1.2050 1.2013 1.1985 3.6 1.1961 3.5 1.1678 2.9 113.0 1.2581 +0.0012 558 - 583 1.2582 1.2531 1.2584 -0.3 1.2568 -0.2 1.2574 -0.1 -0.88267 -0.8	Œ.	1552.62	+2.91	199 - 325	1554.94	1548.10		-4.9	1570.72	-4,7	1621,62	-4.4	74.1
Red   153,460   +0.0115   338 - 413   6,4810   6,4071   6,4353   0,4   6,4271   0,7   6,4101   0,4   98.1   153,460   +0.16   300 - 250   125,420   124,930   125,522   -0.16   200 - 250   125,420   124,930   125,522   -3.8   125,525   -3.6   129,845   -3.7   95.0   Red   125,225   +0.16   200 - 250   125,420   124,930   125,522   -3.8   125,525   -3.6   129,845   -3.7   85.0   Red   120,000   125,420   124,930   125,522   -3.8   125,525   -3.6   129,845   -3.7   85.9   Red   120,000   1274   -281   1,2021   1,2031   1,1985   3.6   1,1916   3.5   1,1678   2.9   113,000   12,000   1,2560   1,2560   1,2560   -0.2   1,2574   -0.1   -0.88267	(LFr							2.1	30,256	1.8	29.951	1.5	107.8
[ES] 153,460	(FI	1.6557			1.6598	1.6539	1.6526	22	7.6462	2.3	1.624	1.9	107.7
Table 125.225 +0.16 200 - 250 125.420 124.930 125.62 - 3.8 126.355 - 3.6 129.845 - 3.7 81.0 125.62 +0.0189 43 - 495 6.8608 8.7800 8.8636 - 3.0 6.893 - 2.7 7.0305 - 2.7 85.9 15.1 1.2021 +0.0008 017 - 024 1.2050 1.2013 1.1985 3.6 1.1876 3.5 1.1678 2.9 113.0 (E) 1.5278 -0.0004 274 - 281 1.5292 1.5259 1.5266 0.8 1.525 0.7 1.5162 0.8 83.1 - 1.2561 +0.0012 558 - 583 1.2582 1.2531 1.2584 -0.3 1.2568 -0.2 1.2574 -0.1 - 0.88267	(NKr	6.4376	+0.0115	338 - 413	6.4810	6.4071	6.4353	0.4	6.4271	0.7	6.4101	0.4	98.1
Red	Œ	153,460			153.770	153,340	153.835	-2.9	154.605	-3.0	158.21	-3.1	95.0
SF1 1.2021 +0.0006 017 - 024 1.2050 1.2013 1.1985 3.6 1.1916 3.5 1.1678 2.9 113.0 (c) 1.5278 -0.0004 274 - 281 1.5282 1.5259 1.5266 0.9 1.525 0.7 1.5162 0.8 83.1 - 1.2561 +0.0012 558 - 583 1.2582 1.2581 1.2584 -0.3 1.2568 -0.2 1.2574 -0.1 - 0.68267	(Pte		+0.16	200 - 250	125.420	124.930	125.62	-3.8	126.355	-3.6	129.845	-3.7	B1.0
(E) 1.5278 -0.0004 274 - 281 1.5282 1.5259 1.5268 0.8 1.525 0.7 1.5162 0.8 83.1 - 1.2561 +0.0012 558 - 583 1.2582 1.2531 1.2584 -0.3 1.2568 -0.2 1.2574 -0.1 - 0.68267	(SKr	6.8465	+0.0189	434 - 495	6,8608	6.7800	6.8636	-3.0	6.893	-2.7	7.0305	-2.7	85.9
- 12581 +0.0012 558 - 583 12582 12531 12584 -0.3 12568 -0.2 12574 -0.1 - 0.68267 - 0.6	(SFr	1,2021	+0.0006	017 - 024	1,2050	T-2013	1.1985	3.6	1.1916	3.5	1.1678	2.9	113.0
- 0.68267			-0.0004	274 - 281	1,5292								
Sc) 0.9999 +0.0001 998 - 000 1.0000 0.9998	-	1.2581	+0.0012	558 - 583	1,2582	1.2531	1.2584	-0.3	1.2568	-0.2	1.2574	-0.1	_
RS)	-	0.68267		-	-	-	-	_	-	-	-		-
RS)													
RS)	esol	0.9999	+0.0001	998 - 000	1,0000	0.9998	_	-	-	-		-	-
CS) 1.9708 -0.0006 705 - 710 1.9720 1.9884 1.371 -0.1 1.3711 -0.1 1.3761 -0.4 82.9 etc) 7.5825 +0.0125 800 - 850 7.5870 7.5800 7.5847 -0.4 7.5879 -0.3 7.5928 -0.1 - 86.5 est/Africa 85) 1.3163 +0.0002 180 - 168 1.3180 1.3160 1.3183 -1.8 1.3218 -1.7 1.3405 -1.8 89.8 (5) 7.7319 +0.0003 313 - 323 7.7323 7.7310 7.7325 -0.1 7.7343 -0.1 7.7613 -0.4 - 89.9 33.8150 -0.48 000 - 300 34.2400 33.8000 33.965 -5.3 34.27 -5.4 35.74 -6.7 - 89.9 33.8150 10.015 100 - 150 105.800 104.89 5.0 103.89 4.7 100.82 4.1 138.8 (5) 2.5435 -0.0025 430 - 440 2.5485 2.5427 2.5444 -0.4 2.5505 -1.1 2.574 -1.2 - 89.9 25.1850 +0.015 750 -950 28.1850 26.1750 -0.015 100 - 150 105.800 1.389 -2.5 1.4897 -2.4 1.5143 -2.3 - 89.9 25.1850 +0.015 750 -950 28.1850 26.1750 -0.015 100 - 150 - 1	(FG)						-	-	-	_		-	_
1.5825	CS						1.371	-01	1.3711	ים_	1.3761	-0.4	82.9
Signature   Sign	,esc)												
## ## ## ## ## ## ## ## ## ## ## ## ##					-	- 2000		-0.4		-0.5			96.5
AS) 1.3163 +0.0002 160 - 168 1.3160 1.3160 1.3183 -1.8 1.3218 -1.7 1.3405 -1.8 89.8 (S) 7.7316 +0.0003 313 - 323 7.7323 7.7310 7.7325 -0.1 7.7343 -0.1 7.7613 -0.4 -0.4 1.3183 -1.8 1.3218 -1.7 1.3405 -1.8 89.8 1.31850 -0.48 000 - 300 34.2400 33.8000 -5.3 34.27 -5.4 35.74 -5.7 -0.4 1.3183 -1.8 1.31850 -0.48 000 - 300 34.2400 33.8000 -5.3 34.27 -5.4 35.74 -5.7 -0.4 1.3183 -1.8 1.31850 -0.015 00 -150 105.480 104.850 104.850 104.850 104.850 103.89 4.7 100.82 4.1 138.8 (S) 2.5435 -0.0025 430 -440 2.5485 2.5427 2.5444 -0.4 2.5505 -1.1 2.574 -1.2 -0.0025 10.0025 430 -440 2.5485 2.5427 2.5444 -0.4 2.5505 -1.1 2.574 -1.2 -0.0025 10.		Africa											
1.5   1.5	(AS)		+0.0002	160 - 169	1,3190	1,3160	1.3183	-1.8	1.3218	-1.7	1.3405	-1.8	89.9
Rej 33.8150	HKS												-
Nei 3.1054 +0.0017 030 - 078	(Asi												-
(Y) . 105.125	SH								J-21			-	-
ASS 2.5435 -0.0025 430 - 440 2.5485 2.5427 2.5444 -0.4 2.5505 -1.1 2.574 -1.2 -1.285 1.4896 -0.0044 804 - 815 1.4894 1.4798 1.4893 -2.5 1.4897 -2.4 1.5143 -2.3 - 800 25.1850 -0.015 750 - 950 22.1850 26.1750								50	103.00		100.83		13B P
25) 1.4806 -0.0044 804 - 815 1.4845 1.4798 1.4839 -2.5 1.4897 -2.4 1.5143 -2.3 -5.51.850 9.51	(MS)												
90) 25.1850 +0.015 750 - 950 28.1850 26.1750	NZS)												
3750 3.7503 -0.0002 501 - 505 3.7505 3.7500 3.7508 -0.1 3.7515 -0.1 3.7548 -0.1 - 505 1.4115 -0.0008 110 - 120 1.4142 1.4110 1.408 3.0 1.402 2.7 1.3755 2.5 - 507 3.9580 3.8700 3.9013 -8.8 3.9525 -8.3 4.178 -7.8 - 507 779.250 -0.35 200 - 300 779.800 778.800 782.25 -4.6 785.75 -3.3 804.25 -3.2 - 507 779.250 -0.35 200 - 300 779.800 778.800 782.25 -4.6 785.75 -3.3 804.25 -3.2 - 507 779.800 -0.002 900 -100 25.2180 25.1900 25.2987 -4.7 25.5025 -4.8 26.385 -4.7 - 507 779.250 -4.7 -4.7 25.250 -4.8 26.385 -4.7 - 507 779.250 -4.7 25.250 -4.8 26.385 -4.7 - 507 779.250 -4.7 25.250 -4.8 26.385 -4.7 - 507 779.250 -4.7 25.250 -4.8 26.385 -4.7 - 507 779.250 -									14081	-2.4	1,3143	-23	
SS) 1.4115 -0.0008 110 - 120 1.4142 1.4110 1.408 3.0 1.402 2.7 1.3765 2.5 - (R) 3.8725 -0.0275 700 - 750 3.9680 3.8700 3.9013 -8.8 3.8527 -8.3 4.178 -7.8 - 0.0175 702.50 -0.35 200 - 300 779.800 778.800 782.25 -4.8 785.75 -3.3 804.25 -3.2 - (S) 27.4980 - 970 - 990 27.5000 27.4970 27.518 -0.9 27.558 -0.9									9 75+5		9.7E40	۸.	
(Pi) 3.8725 -0.0275 700 - 750 3.9680 3.8700 3.9013 -8.9 3.9527 -8.3 4.176 -7.8 -0.01) 779.250 -0.35 200 -779.800 779.800 782.25 -4.6 785.75 -3.3 804.25 -3.2 -0.01 779.800 -9.01 -9.01 -7.5000 27.4970 27.518 -0.9 27.558 -0.90.01 -0.002 900 -1.00 25.2180 25.1900 25.2287 -4.7 25.5025 -4.8 26.385 -4.7 -0.01 -0.0													
on) 779,250 -0.35 200 - 300 779,800 778,900 782,25 -4.6 785,75 -3.3 804,25 -3.2 - 15) 27,4980 - 970 - 990 27,5000 27,4970 27,518 -0.9 27,558 -0.9 8	•												
TS 27.4990 - 970 - 990 27.5000 27.4970 27.518 -0.9 27.558 -0.9								***					
Bit) 25,2000 -0,002 900 - 100 25,2180 25,1900 25,2987 -4.7 25,5025 -4.6 26,385 -4.7 - Mar 4. Biddelier spreads in the Dollar Spot table show only the last three decimal places. Forward rates are not directly quoted to th	Mon)										804.25		-
Mar 4. Bid/other spreads in the Dollar Spot table show only the last three decimal places. Forward rates are not directly quoted to the	(TS)										-		-
	(BI)	25.2000	-0.002	900 - 100	25.2180	25.1900	25.2987	-4.7	25.5025	-4.8	26.385	-4.7	-
d by current interest rates. UK, Imitand & ECU are quoted in US currency. J.P. Morgan nominal indices Mar 4: Base average 1990=100.  .													
•	ed by	current letter	est rates. Ut	K, Instand & 60	والمجارة ومع اللا	ed in US ca	<b>леноу.</b> ДР.	. Morge	A nominal in	dices M	ler 4: Base	averaçe	1990=100

Americas Argentina Brazil Canada	(Peso) (PS) (CS)	1.5276 1.5022 2.0942	-0.0004	271 - 281 016 - 027 933 - 950	1.5290 1.5034 2.0960	1.5001	- 2.0925	- 0.9	- 2.0898	- - 0.8	- 2.0799	- 0.7	- 83.8	Ame Arger Brazi Cana	ntina I	ø
Mexico (1 USA ·	New Peso) (S)	11.5842 1.5278		777 - 906 274 - 281	11.5913 1.5292	11.5541 1.5259	1.5266	a.e	1.525	0.7	1.5162	0.8	95.6	Mendi	co (Nes	v I
Pacific/Mic				_										Pacif	le/Middle	e I
Australia	(AS)	2,0111			2.0170		2.013	-1.1	2.0178		2.0411	-1,5	88.7	Austr		
Hong Kong		11.8123				11.7987	11.8018	1.7	11.7895	8.0	11.7445	0.6	-		Kong	- (
india	(Re)	51.6609				51.6220	-	-	-	-	-	-	-	india		
·· lerae/	.(Shk)	4.7448		395 - 490	4,7492									kreel		
Japan	M	: 160.605		.530 - 680	161.080		159,84	5.7	158.35	5.6	152.455	5.1	138.4	Japa		
Malaysia	(MS)	3.8859 2.2625		642 - 875 611 - 639	3.8903	3.8838 2.2580	0.000		2 2795		~~~~		-	Malay		
New Zealar Philippines		40.0042		797 - 288	2.2701	39.9710	2.2663	-2.0	22190	-3.0	2.3133	-2.2	105.7		Zealand	١
Saudi Arabi	(Peso) la (SR)	.5,7295		279 - 311	5,7347	5.7229	. •	-	-	-	-	•		Philip	pines i Arabia	ø
Singapore	(SSI	2.1585		552 - 577	2.1585									Singa		
South Africa		5.9182		110 - 214	6.0615		- :								Africa	
South Kore	- 47	1190.50		015 - 085		1189,13		_		_		-	-		Kores	6
Tahuan	(2T)	42.0101		988 - 212		41.9592	-	_		_	-	_		Teiwa		
Thellend		38,4993		752 - 234	38.5240			-	-	-	-	-	-	Thaila		
Africaine in l	y current int opth this end	erest rates. The Dollar	Sterling Ind Spot Indian	les colouistes	by the Ban U.E W.WA	k of Engla	nd. Base at	rerace 1	1990 = 100	. Index	rebesed 1/	2/95. Bid	. Ofter and		inste per S but ere in	
EXCHA	NGE C	ROSS	RATES							-					-	Τ
Ma	r 5 .	BPr	DKr	FFr	OM - L	2 1	<u> </u>	<u> </u>	NKr	<u> </u>	Pta	SKr_	SFr	3_	CS_	
Belglum	(BF	100	16.79	16.67 4	.864 2.0	195 51	08 54	48 2	21.18 5	04.7	411.9	22,52	3.956	2,153	4.509	:
Denmark	ĺDΚ	r) 53.21	10				48 <u>28</u>			68.6	219.2	11.98	2105	1.148	2.399	1
France ·	(FF		. 11,28				65 3.2			02.8	247.2	13.51	2373	1_292	2.705	1
Germany	(DIV		3.864		1 0.4		50 1.1			03.8	84.68	4.530	0.813	0.443	0.927	(
Ireland	()S		8.970			1 24				40.9	196.5	10.75	1.888	1.028	2.152	1
liziy	n (		0.368				0.1			.882	8.065	0.441	0.077	0.042	880.0	9
Netherland			3.450				7.5 1			2.85	75.61	4.134	0.726	0.395	0.828	9
. Norway	(NK	7 47.22	8.874	7.870 2	297 0.9	389 24	12 25	72	10 2	38.3	194.5	10.64	1.868	1.017	2.129	1

South Afric South Kon Taken		5.9162 1190.50 42.0101	-0.0438 -0.88 -0.0124	015 - 08	35 11 <b>9</b> 1.55	5.9095 1189,13 41,9592	:	-	: :		: :	:	South South Taiwar	Korea (V	Non) 7	3.8725 79.250 7.4990	-0.0275 -0.36		779,800 7		3.9013 782.25 27.518	:
Thellend	(Bt)	38,4993	-0.0144	752 - 23	38.5240	38.4630		- 					Thailar	nd	(Bt) 2	25.2000		900 - 100	25,2180 2	5.1900	25.2987	
are implied Affigirates in	popp this aim photo this aim	arest stics. The Dollar	Sterling Ind Spot highes	por colonials por colonials por colonials	and the Bear of the Bear of the Bear of the Williams	ENLES CYC F of Eugland	cimei piaces. F L. Base averag DBING SPOT F	o 1990 = PATES, So	100. Index 100 values	r uspeaeq r uspeaeq resects dr	1/2/95. Bio ed by the	Coffer and	market						ot table show o CU are quoted			
		٠.			•	- 																
CROS	S RATE	S AN	D DERI	VATIV	ES																	
EXCH	INGE C	ROSS	RATES	7			·				_											
M	ar 5 .	BPr	DKr	FFr		<u> L</u>	R	NKr	_B	Pta	SKr_	SFr		CS	\$	Y	<u> Ecu</u>	1				
Belgium Denmark	(BF (DK		16.79 10	16.67 8.868	2.588 1.	095 510 115 271	8 2.899	21.18 11 <i>.</i> 27	504.7 268.6	411.9 219.2	22.52 11.98	3.956 2.105	2.153 1.148	2.399	1. <b>290</b> 1.751	345.8 184.0	2.618 1 <b>.393</b>					ı
France Germany	(FF		. 11,28 3,864	10 3.426		257 · 306 431     105		12.71 4.354	302.8 103.8	247.2 84.68	13.51 4.530	2.373 0.813	1,292 0,443		1.974 ).676	207.5 71.09	1.571 0.538	1	ΓHΕ	: (		١
Ireland Yaly	· (1		8.970 0.368	7.955 0.326		1 243 041 100		10.11 0.415	240.9 9.882	196.5 8,065	10.75 0.441	1.888 0.077			.570 1.084	165.1 6.771	1.250 0.051	1		'		ľ
Netherland		n 18.36	3.450 8.874	3.059 7.870	0.893 0.	385 937. 989 241	5 1	3.887 10	92.65 238.3	75.61 194.5	4.134 10.64	0.726 1.868	0.395		1.604 1.554	63.48 163.3	0.481 1.236					_
. Norway Portugal	. (1≘	19.81	3.724	3.302 4.046	0.964 0.	415 101 509 124	2 1.079	4.196 5.141	100. 122.5	81,61 100.	4.462 5.468	0.784		0.893 0	).652 1.799	68.52 83.95	0.519 0.636	ł.			ETS	Ì
Spain Sweden	(Pt (SK	r) 44.40	4.582 8.344	7.400	2.160 0.	930 226 530 129	8 2419	9.402 5.354	224.1 127.6	182.9	10 5,694	1.758		2.002 1	.461	153.5 87.43	1.163					4
Switzerlan UK	d (SF	46.44	4.751. 8.728	4.218 7.740	2.259 0.	979 237	2 2,530	9.635	234,4	104.1	10.46	1.837	1	2.094 1	.528	160.6	1.216	}				
Canada US	(C		4.168 5.712	3.696 5.065	1,478 0.	465 118 637 155	2 1.656	4.697 6.437	111.9 153.4	91,36 125.2	4.995 6.646	0.877 1.202	0.478 0.654	1.370	1	76.70 105.1	0.581 0.796					
Japan	Ú	38.92	5.495 7.178	4.819 8.365	1.658 Q.	606 147 800 195	1 . 2.081	6.124 8.088	146.D 192.8	119.1 187.3	6.513 8.602	1.144 1.511			1.951 1.257	100. 132.1	0.757 1	1				
Danish Kron	s, Freich Fa	urc, Norwe	glan Kroner,	and Swed	sh Kronor per	-10: Selgian	Franc, Yen, Es	cudo, Lina	and Pess	ta per 100.	-							}				
B-D-HAR	K FUTURE	S (IMM) C	M 125,000					· ■ J				(IMM) Yer						-				
	Open	Ladest 0.6757	Change -0,0016		Low 2 0.6752	Est. vol 17,340	Open Int. 65,191	Mar		Open 0.9524	Latest 0.9531	Change +0.0027	_	L¢w 7 0.949(		L vol. ( .925	Open Int. 54,986					
Mar Jun	0.6770 0.6800	0.6788 0.6830	-0.0017 -0.0008	0.6803	3 0.6799	3,568 57	8,395 1,700	Jun Sep	(	0.9622	0.9640 0.9718	+0.0027	0.9553	0.961		507 42	13,829 929	{				
Sep	0.6830	•					•••		TERLING	a FUTUR		£82,500 p	ver 2					1				
	FRANC FU	0.8311	## TEN	0.833		10,890	34,187.	Mer		1.5256	1.5272	+0.000	1.5278				39,949	(				
Mer Jun	0.8321	0.8381	-0,0002 +0,0012	0.840	3 0.8363	3.222	5,916 295	Jun Sap		1.5232	1.5240 1.5220	+0.0002	1.6250 1.5220			634 6	12,599 15	[				
Sep	D.8455	0.5400	70,0012			_	_	•										j				
		217						EM		ROPE		FREN										
	TERES			-				Mer	5	Ecu ce		Rate Inst Ecu	Change on day	% +/- fro		spread weakest		Į				
LONDO	N MON	Dver-	7 daya	One	Three	Six	One .		erlands	2,1521 162,48		.12086 60.544	+0.00331	-1.46 -1.20	_	4.40 4.12	11 8					
? :	<u> </u>	night	notice	month		months 6% - 5%	year 6 <sup>1</sup> 6 ⋅ 6	Spati Belgi	lum	39,396 13,438	SO 35	8.9328 3.3302	+0.0544	-1.18 -0.88		4.09 3.78	9	1				
Interbank S Starting CD	leding S	7 - 55	6% - 6% -	616 - 61 616 - 61	a 67a-6	6 - 5 2	632 - 522	Aust	nany	1.9100	77 1.	89409	+0.00288	-0.84		3.74	-3					
Treasury Bills		-		6 <sup>1</sup> 8 - 61	542 50	5程 - 5程 6祉 - 5指	6½ - 5½	Ports	أجود	7.2858 195.71	<b>32</b> 1!	.31742 96,690	+0.01174	0.48 0.45		243 241	-3	1				
Local autho	rity deps. erket deps	616 - 616 7 - 614	6% - 6% 6½ - 6%	6 <sup>1</sup> 4 - 6 <sup>2</sup>	3 6 <sup>1</sup> 8 - 611	015 - 018	6% - 5%	Fran		6,4060 0,79221		.48987 14957 -	-0.00228 0.000444	1.31 2.87		1.54 0.00	-11 -19					
		-	a 64 per o	ent from J	Jenuary 18, 1 3-6	1996		NON	ERIM MI									[				
OK CHESTURY	Dan Dave		Up to 1 month	1-3 . month		6-9 months	9-12 months	Gree	CS	292.86 2106.1		08,968 984.12	-1.111 -15.98	5.50 -5.79		-2.49 9.20	=	j				
Certs of Ta	dra 6100	0000	212	5 <sup>1</sup> 2	5	5	434	UK	منانه أدنانه	0,78665 set by the	European	138170 Commotion	-0.00127 L Currencies	6.55 sere in descr	andine rei	-3.45 <b>in</b> live stre	ngtir. ·					
Certs of Tax	dep. under C1	6,92900C	. EC3D 1000	1 - Sac each :	e for cash 14 Sport Finance	n atten Delm	y Feb 29.	Percer	ntage cher witwest tw	nges are for co some:ds:	the parcer	skirê change spage differsi	denotes a v nes batween	weak current the actual n	sy. Diverg Walast and	jence sho d Ecu cer	wa tre Ital mas	]				
1986, Agree <sup>o</sup>	1996 to Fab	29, 1998, S	chemes IV a	V 6.238pc	, Finance Hou			Fore	entral mate.					on of the cur ment calcula				}				
March 1, 199	Month S	ERL ING	FUTURE	(LIFFE) S	500,000 pc	nts of 1009	6			LPHEA SE	£/\$ OP	TIONS 23	1,250 (cent	s per pour	ud)			l	•			
	Ореп	Sett price	Change	′ High 93.96	93.92	£st. vol 10057	63037	Strike			CA	ц\$			- PUT		,					_
Mar	93.96 94.17	93.94 · 94.14	-0,01 -0.02	94,18	94.10	27241 19850	69452 52272	Price 1,500		Mar 2.60		-	May 3.35	Mar 0.08	Apr 0.35		May 0.88	1			À	1
Jun Sep	94.15 93.95	94.11 99.90	-0,01 -0,01	94.16 93.96	94.07 93.85	9859 2014	44603 31915	1.510	)	1.74	2.	21	2.89 2.16	0.18 0.32	0.62	2	1.21 1.83	1		,	<b>%</b>	Ę
Dec Mar		02 EB	-0.02	93.65 áredola	93.53 day.	2014	31813	1.530	)	0.68	4.	06	1.66	0.52	1.47	,	2.14	j	•	1		È
Mar Also vaded (	an APT, All O	pen interes	f the man			154		1.540		0.44 0.13			1.25 0.92	0.78 1.40	2.09 2.76		2.68 3.34	1		Ì		ξ
E SHORT	\$1514.00	OPTION	18 (LIFFE) S	2500,000 <u>(</u>	poens of 10	- PUTS -				OL. CHES N	/A Purs N//	A , Prev. day	's open int.,	Calls N/A PL	N/A			ļ		,	13	ľ
Strike		CA	<u> </u>	Sep	Mer	Jun	Sep				بمحمطا	LAR (BAA)	tim	o of 1000				ŀ				3
_Price . 9375	Mar 0.20	0.4	44 9	).53	0.01 0.0 <del>9</del>	0,05 0,11	0.17 0.25	= -		Open D	Latest	Change	Sim port	25 OT 100% Low	Feè	voi O	pen int.				1/2	Į
	0.03	0.5 Q.1		),36 ),23	0.91	n 22	0.37 50	Mar		94.75	94.74	-	84.75	94.73	35,6	<b>899</b> S	16,323					
9425 .Est. vol. 1025	L Cadle 8123	Puts 2643.	Previous de	y'e open in	L, GMM 1614			Jun Sec		94.99 95.01	94.92 94.92	-0.05 -0.05	94,99 95,02	94,91 94,92	76,7 79,1		100,604 139,208	Į				
7		· ·	. <b>.</b> .					_ `			-	ES (MM)	_				-					
								_		95.20	96.20	-0.03	95.20		1.4	iss.	4,647	1				
		PAG	E LENI	ING R	ATES			Mer Jun	1	95.38	95.38	-	95,98	95.20 95.35	1,0	126	<b>6,580</b>	1				
					<u></u>		%	Sep		95.38 • • •	95,33 *** *********	-0.02	95.38	95.33	9	2	1,606					

## THE CME-SIMEX EUROYEN LINK

LETS YOU TRADE AROUND-THE-CLOCK.

Starting today, you can trade the world's most active non-US interest rate contract virtually around the dack. The highly successful SIMEX Euroyen futures contract is now traded at the CME -- using the unique Mutual Offset System between the two exchanges -- alongside the world's most liquid contract, the Eurodollar.

And as with the Eurodollar, traders worldwide can now establish positions on one exchange and offset them on the other. This means being able to trade on two exchanges as if they were one, allowing for greater liquidity, flexibility, cost effectiveness and efficiency.

The CME-SIMEX partnership. The way to



MERCHANT

BANKS, RETAIL

IT systems and services.

*Computacenter* 

Vermoss 374 181 281

Vermoss 274 181 281

Vermoss 5 005 101 121

Ve Community House Price
Community House Price
Community House Price
Community House
Community
Community + or Street, late high low Caption - 1: 3844, 2764, 6151, 1220, 157, 1820, 172

THE STATE OF THE S 16.3 | Moles |

ASSECTION OF THE PROPERTY OF T

| Pic | Pic | Notes | Pics | P Moles APTA Heathcare . VCI Con . Moles . VCI American . APTA Heathcare . VCI American . APTA . American . Am

GAS DISTRIBUTION -0 \$2 week. Mor high low CapEm 317 2224 10,488 279 218 426.6 285 220 70.2 113 89 56.4 716 65 PE 78 11.6 62 140 143 0 4.1 15.9 

Warrants of the control of the contr

FOOD PRODUCERS

18.3 18.3 18.5 17.7

46 183 112 5.2 298.1 3.4 1.8 116.8 19.1

From the UK's leading provider of distributed

。 19. 不是不可以的现在中心,也是不是是不是不是有的,我们是不是一个,我们是不是一个,我们的一个,我们也是一个,我们是一个,我们的一个,我们也是一个,我们们是一个

| 1.2 | 1.3 | 1.1 | 1.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1

ALTERIAN SALESTANTAL SECTION S 

| Section | Column |

APPROPRIEST AND APPROPRIEST AND APPROPRIEST APPROPRIES

FT Cityline

FT Cityfine
Up-to-the-second share prices are available by telephone from the FT Cityline service. See Monday's stare price pages for details.

An international service is available for callers outside the UK, armusi subscription \$250 stg.

Call 0171 873 4378 for more information on FT Cityfine.

For readers phoning from outside UK, please dial 444 in place of the first 0.

The share prices printed on these pages are also available on the internet at www.FT.com.

**LONDON SHARE SERVICE** | Cont. | Cont OTHER FINANCIAL - Cont. /AsA the 1447 | 345 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 445 | 44 | The state of the 35 18.2 conting to the property of the propert Fig. 15.4 (1) 1.5 (1) 5.9 9.8 8.8 17.1 1.0 60.7 Angle Am sed ... 87.1 1.0 60.7 1.0 Time is your most precious commodity.

Call 0990 11 55 55.

The state of the state Time is your most GUIDE TO LONDON SHARE SERVICE Prices for the London Share Service delivered by FT Edel, a member of the Financial Toxics Emup. course motes.

Costing and-prices are shown in pence unless otherwise stated. Alghs and loves are bissed on intra-day mid-prices over a reling 52 week period. Where stocks are denominated in currencies other than sterling, this is indicated after the atoms. lodicated after the aarm.

Symbols referring to dividend status appear in the notes column delay as a guide to yields and PVE ratios. Dividends and Dividend covers are published on Monday.

Market capitalisation shown is calculated asparately for each line of stock quoted.

Earmings used to calculations are based on MAR Theodiese Earnings formation. Price-tearnings ratios are based on latest anount reports and accounts and, vetere possible, are speciated on interior figures.

Yields are based on wid-prices, are grass, adjusted for a dividend last credit of 20 per cost and allow for value of declared distribution and rights. The common process of the common page of the common This service is available to companies whose shares are registery traded in the italiant Reports of expensions.

This service is available to companies whose shares are registery traded in the italiant Reports of security shows, subject to the letter's discretion.

The property shows, subject to the letter's discretion.

The property shows, subject to the letter's discretion.

The property shows a subject to the code FT2825. Fing 0181 770 0770 (open 24 hours including weekends) or Fax 0181 770 3822. Reports will be sent the next working day, subject to availability.

Both Annual Reports and FT Company Focus are available from the above number. available from the above number.

\*\*FT Contributory Focuss\*

Comprehensive 10-14 page report available on this company, containing key FT stories from the last year, latest survey of City profit forecasts and investment recommendations, 5 year financial and share price performance review, balance sheet and profit and loss data, plus recent Stock Exchange amouncements for 25.45.

To order, call 0121 200 4678.

Reports published by ShareFinder Ltd.

FT Cityfine

MMENT

SESIDAS MARCHA

of could 5m

7-27-ATT TOWN

**Om** investmen कृत्वार । १८८३ म Meter sere p TEACH TO THE TEACH

The section of the se

ire offices

ent today

And the second s

Secretary of the second 31

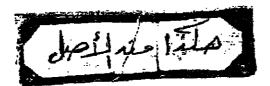
. . . .

The state of the s

FFSHORE ISURANCES

FT Cityline Unit Trust Prices are available over the telep	hone. Call the FT Cityline Help Desk on (+44 171) 873	4378 for more details.	UNDS SERVICE	Santag Steffun - or Vietal	jek Begas Ballay Baylay +07 'Ball Para Prins John - Dri	tell stone Selling Stoping +or Table Clarge Pales 70% · Cris
OFFSHORE AND OVERSEAS	Price Price Guinteess Flight Select Francis Pic Sup 1989 1989 1989 1989 1989 1989 1989 198	Chemical Ireland Fund Administrators Ltd	Ashburton Global Funds Ltd (1200) John Go	veit Management (Jersey) Ltd Eagle S	Star - Global Assets Fund (II)  Star - Global Assets Fund (III)  Star - Global Assets Fund (III)  Star - Global Assets Fund (I	Con Carolical Management Total Alpha Investment Ford Hadagement Co. Str. Str. Str. Str. Str. Str. Str. Str.
BERMUDA (SIB RECOGNISED)	Hembros Fund Managers (retand) Lind Francis Services Care, Desir 1 (17) 4 (17)	CTC Fromber NAT ST7 10 Ltd -	Common Series Said   Co. Common Torico   1468   Common Series Said   Co. Common Series Said   Co. Common Series Said   Co.	Target and the property of the state of the		creare Stabul Found (c)
Fidelity Currency Funds Ltd From Will Arthrobas Bormuta From Will Arthrobas Bormuta From About 100 1110 From Will Arthrobas Bormuta From Will	16 (Secressy) Ltd (Se	Paris Enrope Franci Meaning Indian Ltd   120   1	Mercury Frank Missaggers look Ltdl Oncom 850255 12-13 His 2004 Dougles bold Miss ell 80000	The Banking (C) Ltd	Non-excest   No. Price provide in State graph	Inguel Balcot see Manuffe Regard Codal Baccatol Assert Management Baccatol Assert Management Baccatol S B et Balconol de Robertalle (Augustane) Angere Glaime Product per Baccatol S B et Balconol de Robertalle (Augustane) Baccatol S B et Balconol de Robertalle (Augustane) Baccatol S B et Balconol de Robertalle (Augustane) Balconol S B et Balconol de Bal
GUERNSEY  ANZ Magast Co. (Goest Land & Invalid Land		Mo/ SA.706  Dreschier Kleinwurt Bezins int Migt Services Lid  State Grown byte Frank Picture  State Grown State Forther Frank Pic  State Grown State Forther Frank Pic  State Forther Forther Frank Pic  State Forther Forther Forther Frank Pic  State Forther Forthe	Combard Control of Con	Order (Notes) Ltd		E-Busines Lucrosoboury SA Degeneral Royal L-2440, Lucrosomy and Genty Prom. Sanda 20 24 489 7-27 Sanda Royal Royal Sanda 20 24 489 7-27 Sanda Royal Royal Sanda 20 24 489 7-27 Sanda Royal Royal Sanda 20 24 489 7-27 Sanda 20 24 489 7-27
Apollo lavestment lateration and lat	ingers (Georges) Ltd	Enterging Dynamic Fund Pic Strenging Market Growth Fund Pic File Treestand Fund Pic File Treestand Treest Ltd (a) File Treestand Treest Ltd (a) File Treestand Fund Pic	The state of the s		1000	The second secon
Corp. 107 207 207 107		Frank hisself investment Manut (hetand) Ltd (u) Frank hisself investments (hetand) Ltd (u)  Frank hisself investments (hetand) Ltd (u)  Frank hisself investments (hetand) Ltd (u)  German Management (hetand) Ltd (u)	For ATC fund libraryumanest yau Sylang Valencesthous  AXA Equality & Larve Intil Pound Migra  Egystema Sealing	Control of the Part of the Par		tropier International Selection Fel (a)
BERMUDA (REGULATED)(**)  Seriouda limi inverse Magneti Lité  Seriouda limit inverse Magneti Lité  Seriouda li lité  Seriouda limit inverse Magneti Lité  Seriouda limit	iands) United	Chroni Franchiste for The Story Co. 0.00  For of Asset May Probe Little to 187 Asset May R.C.  Growth Franchiste Co. 187 Asset May R.C.  Story Co. 187 Asset	The state of the s	A Committee of the Comm	Splanning   Darri 25   Louis loos   Splanning   Darri 25   Louis loos   Splanning   Darri 25   Louis loos   Splanning   Darri 25   D	
But Gotto Love Be Dec 31	STORY 102   120	September 1970 1112 1113 1113 1113 1113 1113 1113 111	Section (State & State )   12-100   12-	# 100 15 10 10 10 10 10 10 10 10 10 10 10 10 10		
Kleinwert Bessen int	1 Fd Mogra Ltd		Sylvens differentiated rupts assessment that the control of the co	September 1971 1988		The second secon
Lazard Fund Manage Lazard Fund M	75	Com Europe Workhuide Fund	Scringer Service   1   1   1   1   1   1   1   1   1	levery Feet Margarit, Jersey  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	16. Change   1.00   1.0	con Addrogen, L.—1118, Lineamoury 00 855, 4799 2892
September 1998   1998   1998   1998   Catalog   1998   199	Managara (Buoman) Ltd Star Carour (Bublio) Ltd Star Star Star Star Star Star Star Star	Corea Golden Dynasty Fund Pic	All Fund Managers (C) Ltd	MBOURG (SIB RECOGNISED)		AND SECTION AND SECURITY OF SE
Orbis Investment Management Ltd  Merril Lynch Guerra  Barril Lynch Guerr	The state of the s	Korsa investment filanogement trokand Ltd.   Is 14   bets from Committee Pt.   Is 25   3.34   -0.06	Different of the state of the s	RO Fernds (u) 39 Allen S 1 Manes, 1.—2 (e) Lessandours 352 A249-69220 HSSRC (u HSSRC (u)	Part	The state of the s
AIB Investment Managers (Guernser) Ltd.  In Co. 255 1 Four For Sciencery C 1481 710831  All properties of the Commercy C 1481 710831  Paragon Can Age Fol Ltd.  Paragon Can Ag	gemeent List  3102 7514  100 100 100 100 100 100 100 100 100 10	Korsan Enterging Growth Fund Pic Korsan Enterging Growth Fund Pic Korsan Prover Fund Korsan Prover Lide Korsan Lide Korsan Prover Lide Korsan L	For Castler Pourse on Horscan Fund Managers 4 Southers Allers All	GENTY STATUS OF		
FULL 15 SO Price For Garmer's G. 1510 1 1525		1 September 1 Sept		Phoenix Investment Portfolios (a)  Phoenix Investment Portfolios (a)  Phoenix Investment Portfolios (a)  Phoenix Investment Portfolios (b)  Phoenix Investment Portfolios (a)  Phoenix Investment Portfolios (b)  Phoenix Investme	Troy Management SA (p) Troy L - 233 Sentemont, Lor Troy L - 233 Sentemont, Lor Troy L - 235 Sentemont, Lor Troy L	The state of the s
Group Strategy (and Gloss)	In Street, Provide 12, 2, 16 Employ Provide 12, 10 Employ Provide 12, 10 Employ Valve	661 July 1 Constitute State 1 Co	Continue of the continue of th	Security Day 17 To Art Series Control of the Contro	entrop late:    Company	tens international University Fund (a)
	Sale Into Mesoney Bearines Feb.	Bat First Lemma Fard pt	Section Starts for Last Floring George Florings	The Board of the Control of the Cont	cords Whert, Mar St. Lordge SE1 0177 237 3050	
Schweder towerstreem  Bath  Ba	t Maggrut (Guermany) Ltd	Driest Balanced Fund Pic.	HIS Samurae Franch Magra (Jay) Ltd (1900) F 190 Pro 18 Pro		A A A A A A A A A A A A A A A A A A A	Same Carpinal Same Same Carpinal Same Same Same Same Same Same Same Same
Hearthrus Fel Migras (Ch) Ltd (1477 7445 4 1477 1475 4 1477 1475 4 1477 1475 4 1477 1475 4 1477 1475 1475	ment (Fourmery) Ltd	Parcific Growth Fund Ltd  All Parcific Growth Fund Ltd  All Parcific Growth Funds Pic (or )  Big Resem (1924) — 18 11 11 15 15 15 15 15 15 15 15 15 15 15	School Communication Communica	Silversified Portfolio (2)  Indian L-1118 332,4789,2238 13,786 (6)	Typical Global Family	15.16
All of the second secon	SIB RECOGNISED)	(a) J. Rottschild International Asses ptc.	Newton Fund Migra (CI) Ltd (1220) F F) Bu 18) S (1484 Line) F F) Bu 18) S (1484 Line) F F (1844 Line) F F (184	Legislands (Laurenbourg)		
ARB Fund Management of the second for the second fo	ent Lid  Series 00 7531 BET 7077  HI STA 8588 1 11  Freshand) Lid (0) 2537 7900400  IRELAND (REGULATED) (**	The property of the control of the c	Canada Ca	10 Care, 1-16/19		11/7 30 20 20 20 20 20 20 20 20 20 20 20 20 20
Larord Found Mingres (Channel Islandes) Life  2 Pol Larord File (1981) 1980)  2 Pol Larord File (1981) 1980)  3 Pol Larord File (1982) 1980  4 Pol Larord File (1982) 1980  5 Pol Larord F	AIS Found Management Ltd  AIS Found Management Ltd  AIS Found Management Ltd  AIS Glove Penic but Trent Despera Penic  AIS Glove Penic  AI	Company of the compan	Royal Bank of Scotland Feld Mayor (Leosey) Ltd. PO See 450 Ordanos Hoose, Science of See 150 Ordanos Hoose, See 150	Carry 11 11 11 11 11 11 11 11 11 11 11 11 11	## 00 302 4789 2016 The Tend (u) 10 302 4789 2016 The Tend (u) 10 10 10 10 10 10 10 10 10 10 10 10 10	And Opportungly STI, 87
Livrice from Noney Mariott Frant Lie Livrice Intil Money Mariott Mario	up sale Upwarmic Growth Fund Pic selection of the sale Small Cos Growth Fund (u) states of the sale Small Cos G	SBC CAPM Strategies Pic    Sign	The Petrol Managers (A) Line of the Petrol Managers (A) Line o	Table 1 Control of the control of th	Beneport World Portfolio (u) nd Royal Lummbourg 00,362 45907 Ba portinity 5 5 5 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Tack the 'S ' 736072 000'
	ECHM STC 0117 204 7000 New 51:73 0.0  Asset Korea Fund 59:904   14:55	Scotlish Amicable European/International	JERSEY (REGULATED) (***)  Solding Angles *** Trick  Fritzs *** Trick  Solding Angles *** Trick  Solding Angles *** Trick  Solding Angles *** Trick  Solding Angles  Barctisge Intil Ferreis  Asian State Angles  (\$4,993, (763)   9-203.] 9.8 Solding Angles	Loodres, 75006 Paris 00 331, 4470 7510 State of the paris		Female Park State Program Park State Park St
M & G (Guerrousy) Ltd  A Service Transport (Control of the Control	CO 1531 6004300 Exit Freed hearten Saincton Freed Free Control of the Control of	Scottish Mutual inti Fund Managers Ltd	Cater Allen Investment Management (CI)  CA CR Investment St 67 4 8 9 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	10 Report State Pand to C2 40 400 207 100 100 100 100 100 100 100 100 100 1	enery insultant Feb (6.) 20 65.  Finald informational (n) Fit Its. 513.52.  Fit Its.
Rothschild Accel Manageritent (CJ Ltt.  To 97 107 107 107 107 107 107 107 107 107 10	Secretary in the First Services Life Conference Confere	Sellent Savetiment Attenagement (preland) Ltd	Libra 2000 and Feb 1   \$149.51     - 11 Rue #50	100 100 100 100 100 100 100 100 100 100	American S.A. (1997)   1997	Those Investment Blansgement   1975
	places September 19 Per Berring Information Per Migres (Irrelated Migres (Irrelate	Active Forms Form Pic Value Express Family Pyramic Keras Family Value Express Family Pic Street Family Pyramic Keras Family Pyramic Py	Courth & Co (Access) Franch Managers Ltd.  Authorize Region Performance 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	State of the control		Accept investment Ment (Lorenthourn) SA (Marie Marie M
A three Comes, Dubbles adaptive to the Comes and Comes a	Bandan ( AND ) and ( )	Tellow San Investment Company PLC Section 1 Se	The proper part of the proper part of the	DESCRIPTION OF THE PROPERTY OF	TOTAL	Secretary Secret
Reyral Six of Commette O/S Fol Migra Ltd GAM Found Manager Six Commetted O/S Fol Migra Ltd GAM Found Migra	Berkshire KITC Growth Fund Pic Service Fund Fund Pic Service Fund Fund Fund Fund Fund Fund Fund Fund	AXA Equity & Leav and Fund Magns of the first inches from the firs	Despuis		Figure 1 Annual St.CAV(s)  Selection of the Managere Hanney Ed 1933 (1934)  Selection of the Managere Hanney Ed 1934 (1934)  Selection	

FT MANAGED FUNDS SERVICE



And the same of th

Treat to the state of the state

ESTATE WARCHE

MMENT

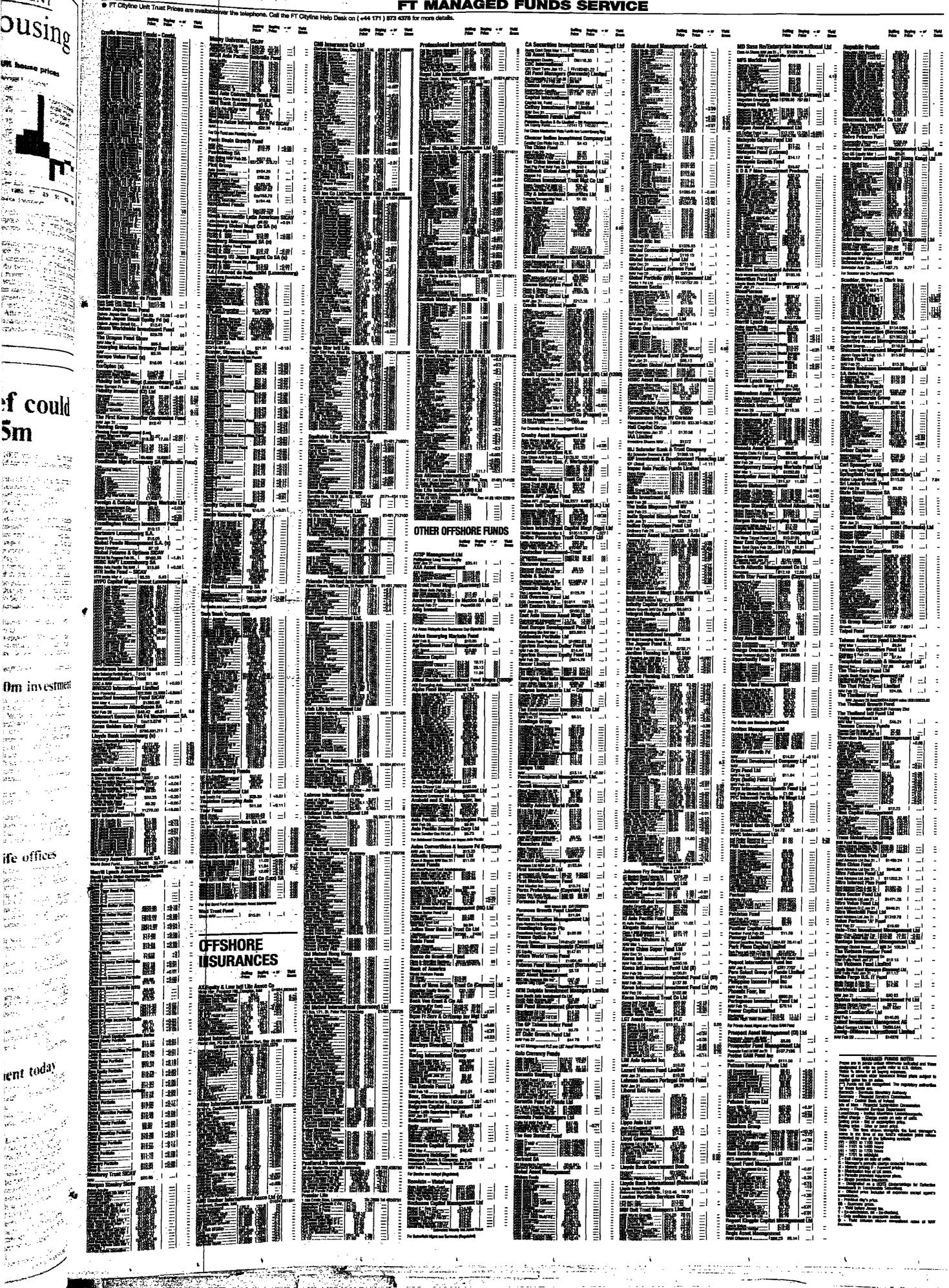
確定 マンド 三元

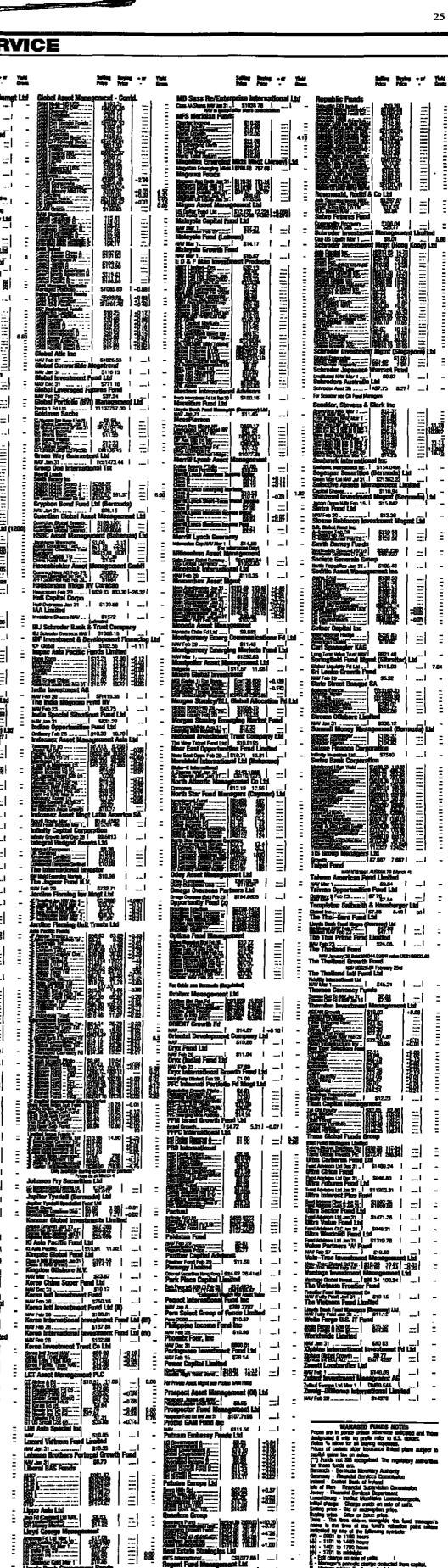
経生で ここの 元気

5m

アインフィー

医腹切迹 医二甲酚





25

#### LONDON STOCK EXCHANGE

MARKET REPORT

## Sell programmes and US news upsets equities

By Steve Thompso UK Stock Market Editor

The effect of some strong US economic news, plus a series of programme trades, said to have been weighted on the sell side, combined to choke off what had been an exceptionally strong opening performance by UK equities.

The bad news came after the UK market's main indices had moved up to new all-time records on the back of strong hopes that domestic interest rates will be lowered after Mr Kenneth Clarke, the chancellor of the exchequer, meets Mr Eddie George, the governor of the Bank of England, on Thursday.

manfully after an unhappy start, the FT-SE 100 index ended a busy trading session a net 8.5 higher at 3,777.1, well short of its previous closing high, 3.781.3, reached on February 2. The index did, however, record a new all-time intra-day high

of 3,792.5. The FT-SE Actuaries All-Share index reached another new record closing 5.76 up at 1,864.59. And the FT-SE Mid 250 index gave another power-packed performance, racing up to finish 27.3 higher at a record close of 4,272.2.

The driving forces behind the Mid's showing came from yet another stunning performance from British Biotech, and from numerous bid targets. Of these NYNEX, the cable television group, jumped almost 6 per cent.

A 0.5 per cent rise in US factory goods orders, which compared with a consensus forecast of a 0.5 per cent fall, did the damage in US bonds, which fell around threequarters of a point in early New York trading.

With bonds pressured, US equities struggled and the Dow Jones Industrial Average was down 20 points shortly after the start, before stabilising and moving into positive ground after London closed.

Earlier, UK stocks had made rapid progress, basking in the

reflected glory of Wall Street's overnight 63-point upsurge.

A flurry of institutional buying, promoted by the interest rate optimism and takeover hopes, bulldozed Footsie to its new record, with the second liners tagging along before taking off in their own right.

But with the bond markets starting to flag, the sell programmes began to bite into the market's confidence. From its record, Footsie retreated to a session low of 3,771.9, only 3.3 up,

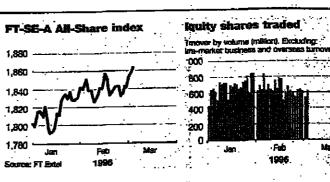
before steadying with Wall Street. Manchester United's victory over table-topping Newcastle United threw the Premier League championship wide open again and saw the

all-time high of 280p; bookmakers installed United as the new favourites to take the league title.

BAA and British Airways took the honours in the FT-SE 100 performance table, with both stocks up over 3 per cent, the former after a spate of broker buy recommendations and the latter after excellent February traffic numbers.

On the downside, the big oil stocks shuddered amid talk that Iraq may sell up to \$2bn-worth of oil on world markets.

Boosted by the programme trade activity, turnover in equities expanded to 863m shares. Retail business on Monday was valued at £1.47bn.



FT-SE 100 4272.2 1889.0 +27.3 +5.9 FT-SE-A 350 Transport

2807.9 T Ordinary index T-SE-A Non Firs p/e +16.6 17.52 3777.0 T-SE 100 Fut Mar 0 yr Gilt yleid

Mineral Extraction Household Goods

Major Stocks Yesterday

3,500 1,

#### **BA** beats traffic forecasts

Transport leaders scooped the Footsie pool with airports group BAA and British Airways turning in the day's two strongest performances.

BA's bumper traffic returns for February took analysts totally by surprise and there were suggestions yesterday that a number of fingers were beginning to tighten around upgrade triggers.

The airline's traffic flows jumped 13.4 per cent, running counter to concerns about severe weather and the impact of the end to the IRA ceasefire. The consensus expectation among City transport teams was probably 7 per cent

growth. The extra day, as a result of Leap year, was said to have accounted for some three percentage points of the upturn but even so the numbers were impressive, and included very strong premium traffic busi-

BA shares jumped 17 to 534p to run BAA, which shot forward 18 to 516p in turnover of 8.6m, a close second in the Footsie rankings.

BAA has been a dull performer lately, lagging the market by 1 per cent since the start of the year. A number of buy notes are known to be in circulation, and the company has recently been meeting with

P&0 stayed in demand in spite of stories linking the

group's name with the Cunard line, said to be up for sale following the agreed bid from Kvaerner of Norway for Cunard's parent company, Trafalgar House. The shares put on 5

to 540p. Construction group Amec, in which Kvaerner has a 26 per cent stake, fell 4 to 95p on revived worries that the Kvaerner holding was about to be placed in London.

#### Allders promoted

Following the bid by Uni-Chem for Lloyds Chemists, retail specialists are scrabbling around to identify the next bid

in the sector. Mr Mark Josefson, of Panmure Gordon, has identified Allders as a possible candidate. after examining three criteria that might well come under the scrutiny of a predator.

He has discovered that Allders is the only company in the sector that meets all of his crihighest p/e discounts to the market, one of the five most significant Enterprise Value ratios (a measure based on cashflow) and one of the five highest asset values compared to its share price.

Finally, he believes the company splits very cleanly between the department store arm and the international duty free arm - which could attract the attention of airlines such as Cathay Pacific and SAS. The shares were a penny easier at Kingfisher, the group that

owns Woolworths in the UK. jumped 14 to 534p after Panmure Gordon featured the company as its key buy in the sec-

#### Tarmac dips

News that Ministry of Defence police had raided its Wolverhampton offices pushed aggregates group Tarmac sharply lower in heavy volume. Down 5½ at one stage, the shares closed off 3 at 119p. The shares have outpaced the market by 26 per cent over

There was no immediate explanatory statement from the company, which did not best please the City. "There is nothing marketmakers like less than uncertainty", said

turnover yesterday surged to

one leading analyst. A top broker buy note helped push up Gleeson (M.J.) for the second day running. The

shares jumped 58 to 803p. British Biotech rose sharply in very thin volume after the company announced encourag-

ing third quarter results and

Financial	TIME	S EQ	VTIU	INDIC	ES			
	Mar 5	Mar 4	Mar 1	Feb 29	Feb 28	Yr ago	1-Egh	Low
Ordinary Share	2807.9	2791.3	2775.5	2756.4	2756.2	2277.6	2807.9	2238.3
Ord. div. yield	3.82	3,84	3.86	3.88	3.88	4.62	4,73	3.76
P/E rateo net	17.08	16.98	16.88	15.78	16.80	16.32	21,33	15.35
P/E ratio nil	16.85	16.75	16.65	16.56	18.58	15.86	22.21	15.17
"For 1995/96. Ordina	ay Share	Index sinc	e compils	iligh (ngh	2807.9 54	23/96; low	49,4 %R	40. Base

~~~~,	-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	~~~~	•							
Ореп	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High	Low	
2812.0	2807.9	2512.8	2809.4	2806.2	2808.2	2803.0	2803.6	2807.2	2816.1	2802.7	
			Mar 5	Ma	¥ 4	Mar 1	Feb 2	29 F	eb 28_	Yr ago	
SEAO be	rgains		37,290	36	,845	33,405	31,4	28 3	32,378	29,486	
Equity to	mover (	£m}†		- 14	71.5	1665 6	1699	3.6 1	824.2	2029.0	
Equity by	argansj			- 44	,782	32,437	36,3	22 ;	37,587	40,198	
Shares to	raded (n	n\$†		- 6	D1,4	543.3	614	1.6	640.0	711,7	

#### the expansion of trials on its tion in respect of OPEC quotas. cancer treatment. BP slipped 31/4 to 543p and Biotech shares responded Shell Transport 9\% to 843\%p. positively to the company's On Monday, Lehman Brothers lowered its recommendation on four international oil compa-

announcement that it is expanding trials on its marimastat drug and will announce further results in May. The market also reacted positively to news that the company's lexipafant drug began a Phase III trial in the US in patients with acute pancreatitis. The shares jumped 272 to 2320p.

Oil stocks came under pres sure as unease grew over the possible acceptance by Iraq of United Nations conditions for

Potential extra supply would be negative for a market already likely to be oversupplied in 1996 and there were additional worries about Monday's news that OPEC is producing 1.5m barrels above its self-im-

Thirdly, Algeria and Venezuela want to increase produc-

	New 2	report to	LANCH I	TOU 23	reu 20	n ayu	LEATH.	LUW
Ordinary Share	2807.9	2791.3	2775.5	2756.4	2756.2	2277.6	2807.9	2238.3
Ird. div. yield	3.82	3,84	3.86	3.88	3.88	4.62	4.73	3.76
/E ratio net	17.08	16.98	16.88	15.78	16.80	16.32	21,33	15.35
/Erationil	16.85	16.75	16.65	16.56	18.58	15.88	22.21	15.17
For 1996/96. Ordina late: 1/7/35.	sy Store	endex sinc	e complis	dign; high	2807.9 5/0	13/96; low	49.A ;SA	40. Base
ordinary Share h	curty ch	anges						

Mar 5	Mar 4	Mar 1	Feb 29	Feb 28	Yr ago
37,290	36,845	33,405	31,428	32,378	29,486
-	1471.5	1665 6	1699.6	1824.2	2029.0
-	44,782	32,437	36,322	37,587	40,198
	601.4	543.3	614.6	640.0	711.7
	37,290	37,290 36,845 - 1471.5 - 44,782	37,290 36,845 33,405 - 1471.5 1665.6 - 44,762 32,437	37,290 36,845 33,405 31,428 - 1471.5 1685.6 1699.6 - 44,782 32,437 38,322	37,290 35,845 33,405 31,428 32,378 - 1471.5 1655.6 1699.6 1824.2 - 44,782 32,437 38,322 37,587

**PHARMACEUTICAL** 

**BUSINESS NEWS** 

The twice-montnly

international update on the pharmaceutical industry

Dublished every two weeks, Pharmaceutical Business News brings you up-to-date news, quantitative analysis, forecasts and inside

information on new product introductions and

Dharmaceutical Business News also contains round-ups of essential interim and year-end company financial performance and results,

Who should read

**Pharmaceutical Business** 

News?

pharmaceutical business will find a subscription to Pharmaceutical Business News invaluable. It is an essential source of information for all pharmaceutical executives involved in:

all or fax now for your FREE

FINANCIAL TIMES Pharmaceuticals and Healthcare Publishing Aura House, 53 Oldbridge Road, London SW12 SPJ Tel: + 44 (0) 181 710 2194 Fax: + 44 (0) 181 673 1335 E-mail: 100414.271 @ CompuServe.com

oarson Professional, Registered Office: Maple House, 149 Tottenham Cour Road, London W1P 9LL, Registered No. 2970324 (England and Wales)

Anybody that has dealings with the

plus news on acquisitions and mergers, and regular comment and views from the world's

joint venture agreements.

stockmarkets.

■ Management ■ Marketing

■ Manufacturing

**■** Finance

■ Research & Development

nies, citing a 75 per cent

chance that Iraq will accept

the UN's limited oil sale deal.

It reduced its recommendation

on Shell to neutral from out-

**East Midlands Electricity** 

improved 5 to 615p with the

help of a buy recommendation

from Hoare Govett. The broker

argued that, since the regional

electricity companies

demerged their holding in

National Grid, East Midlands

was the only one to have

The broker was also recom-

the basis that vesterday's

announcement of a convertible

buy-back makes a subsequent

share buy-back increasingly

Mr Matthew Siebert, of

Hoare, believes the company

could comfortably repurchase 20m shares, or about 10 per cent of the equity. The shares

The latest intensification of

the US computer price wars

washed over on to electronics

group Amstrad and circuit sol-

tumbling more than 3 per cent

to close off 6 at 209p. Cookson,

which puts out annual results

tomorrow, came off 5 to 312p.

Among conglomerates, Har-

risons and Crosfield continued

to gain ground on hopes for a demerger, adding 8 to 172p for

Pub groups continued to

move ahead following recent

a two-day advance of 10.

closed 7 higher at 650p.

der specialist Cookson. Amstrad ended as backmar-ker in the FT-SE Mid 250 index,

likely.

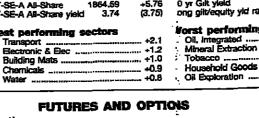
underperformed the market.

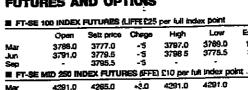
Rumours of corporate activity continued to buoy cable TV shares. Nynex CableComms added 6 to 111p, while TeleWest Communications gained 4 to 140p, with 9.5m shares

Mobile phones group Voda-fone rose 5½ to 246p in 16m traded helped by a positive note from ABN Amro Hoare Govett which saw 50p of upside

in the shares. ICI powered forward again, closing 17 ahead at a record peak of 939p as a shortage of stock, combined with news of a \$390m expansion into Latin America, squeezed the price

A 30 per cent increase in profits prompted Metal Bullemending Yorkshire Water on tin shares to jump 80 to 773p.





	Ant	Mic				Close			-	<b>~</b>	
price	paid	cap	1965			price		Net		Grs	F
Þ	UP)	@m.j	High	Low	Stock	Đ	#-	ďv.	æ.	yld	_
	F.P.	52.5	525	498	BZW So (Brinde)	525	+13	-	-	-	
-	F.P.	6.28	612	512	†Bullynatray	6	412	-	-	-	
7.5		14.7	812		Clubhas	6	_	-	-	-	•
-	F.P.	0.07	512	31.	Clubhaus Wrts	314		-	-	-	
-	FP.	11.8	90	63	†Drnatek	63		•	-	-	
-	FP.	13.3	15	11	Ex-Lands Procs	12		Lv0.5	-	5.2	
_	FP.	0.18	1312		Ev-Land Wrts	812			-	-	
12	F.P.	56.8	1612	15	†Freecaces	1512	ولب	<b>v</b> -	-	-	
	FP.	30.6	143		IOC #dl	125		-	_	-	
-	F.P.	0.13	8	8	Mitten Point Wits	В		-	-	-	
-	F.P.	15.8	71	86	Cotical Care (B)	68	-2	-	-	-	
-	F.P.	1.13	105	100	Revelation Polity	105		-	-	-	
54	F.P.	2.92	60		Self Seating Sys	50		-	_	-	
175	F.P.	125.4	223		State Pharms	206	+2	-	-	-	
-	F.P.	1.00	9	6	†SkyePharma Wirts	84	44	-	-	-	
180	F.P.	111.5	188	179	Streamine	180	-3	Wv7.7	1.7	5.3	

								-
								-
FT GOLD	WIN	≘S I	NDE	X			4	
FT GOLD	MINE 4	Sell % chg on day	NDE) Hier 1	Year ago	Gross div yield %	P/E 12 <b>0</b> 0	S2 High	week Lev
	<b>Mar</b> 4	% ctg on day	Mar	Year ago			High	
FT GOLD  Gold Mines Index (33)  Regional Indices	<b>Mar</b> 4	% ctg on day	Mar 1	Year ago	yield %		High	Lov

# Regent Inns jumped 35

	(1941)	ಡಲಿಕಳ	MSI 4	me i	100 20	egu	унакиза	CUVE	Iauc	yıu	- NEATH
FT-SE 100	3777.1	+0.2	3768.6	3752.7	3727.6	2977.0	3.89	2.06	15.59	25.03	1520.1
FT-SE Mid 250	4272.2				4215.0		3.45	1.74	20.80		1697.4
FT-SE Mid 250 ex Inv Trusts	4293.2	+0.7	4264.4			3335.5	3.57	1.79		37.89	1707.3
FT-SE-A 350	1889.0	+0.3		1876.0		1485.5	3.80	2.00		13.22	1555.3
											1286.3
FT-SE-A 350 Higher Yield	1882.5	+0.1		1875.2			4.70	1.84		13.21	
FT-SE-A 350 Lower Yield	1901.0				1868.8		2.85	2.27	19.37		1307.2
FT-SE SmallCap	2069.46				2052.77		3.05	1.81	22.62		1678.3
FT-SE SmallCap ex Inv Trusts	2050.17				2033.02		3.26	1.90	20.21		1671.1
FT-SE-A ALL-SHARE	1884.59	+0.3	1858.83	1852.03	1840.77	1470.41	3.74	1.99	16.83	12.53	1559.5 .
■ FT-SE Actuaries Ali-S	thare										
, <b></b>		Day's				Year	Div.	Net	P/E	Xd adL	Tola
	Mar 5	chge%	Mar 4	Mar 1	Feb 28	ago	yield%	COVE	ratio	ytd	Retu
10 MINERAL EXTRACTION(24)	3270.97	-0.5	3288.90	3284,17	3257.26	2573.05	3.96	1,51	20.93	22.56	1386.2
12 Extractive Industries(6)	4204.61	+0.7	4174,22	4171.31	4162.10	3351.20	3.77	2.39	13.84	85.48	1230.3
15 Oil, Integrated(3)	3306.01	-0.8	3333.25	3327.65	3295.72	2575.07	4.18	1.35	22.11	18.24	1433.3
16 Oil Exploration & Prod(15)	2241.48	-0.3	2249.11	2247,99	2234.47	1901.30	2.19	1.41	40,56	0.00	1330.3
20 GEN INDUSTRIALS(276)	2083,15	-0.4	207E 20	2071 86	2059,45	1700 40	3.98	1.89	16.63	4.94	1121.3
	1114,37				1085.25		3.63		17.03	1.16	919.
21 Building & Construction(34)								2.02	17.03		
22 Building Matts & Merchs(29)	1933.42				1901.99		3.88	2.03			959.6
23 Chemicals(23)	2578.94				2524.97		3.88	2.03	15.85	1,34	1201.1
24 Diversified Industrials(21)	1790.22				1774,60		5.51	1,48	15.36		985.5
25 Electronic & Elect Equip(38)	2360.90				2351.99		3.05	1.84	22.25	2.65	12122
26 Engineering(71)	2341.19				2318.86		3.22	2.34	16.61	3.73	1403.4
27 Engineering, Vehicles(13)	2664.95	+0.1	2683.33	2645.50	2629.07	2067.00	3.85	1.26	25.82	0.23	1358.7
28 Paper, Pckg & Printing(28)	2739.44	+0.3	2731.09	2723.07	2710.29	2695.27	3.66	2.52	13.54	0.51	1123.9
29 Textiles & Apparei(19)	1489.14				1506.22		4.67	1.75	15.31	7.42	897.0
				_							
30 CONSUMER GOODS(81)	3541.41				3594.56		3.79	1.74	18.90		1325.6
32 Alcoholic Beverages(9)	2823.08				2801.39		4.31	1.67	17.39	28.48	1009.3
33 Food Producers(23)	2568,05				2538.60		4.24	1.70	17.29	4.90	1141.8
34 Household Goods(15)	2519.04				2528.59		3.79	215	15.35	2 <i>.</i> 27	<b>945.</b> 2
36 Health Care(20)	1973.04	+0.2	1969.47	1954.87	1945.75	1600.21	2.65	1.82	25.98	2.54	1186.5
37 Pharmaceuticals(13)	5179.14	+0.8	5137.80	5074.97	5076.42	3574.39	3.20	1.69	23.14	12.95	1734.2
38 Tobacco(1)	4841,17	-0.5	4866.52	4836.87	4841,11	3448.71	4.85	1.94	13.02	0.00	1171.1
40 SERVICES(253)	2357.15	٠.07	2961 64	2337 26	2321.57	1914.45	291	2.10	20.23	14.00	1230.6
41 Distributors(32)	2652.48				2620,41		3.69	1.82	18.56	4.27	966.0
42 Leisure & Hotels(23)	2940.32				2937.58		2.83	2.09		106.45	
43 Media/46)	3893.38				3828.78		2.17				
								2.13	27.04		1399.6
44 Retailers, Food(15)	1899.34				1854.90		3.85	2.41	13.51	2.85	1191.7
45 Retailers, General(43)	1965.71				1906.89		3.02	2.23	18.56	5.73	1111.3
47 Breweries. Pubs & Rest (24)	3007.93				2995.45		3.28	2.08	18.29	15.72	1434.8
48 Support Services(49)	2132.74				2108.71		2.27	2.54	21.74	3.32	1344.8
49 Transport(21)	2333.70	+2.1	<u>2344.28</u>	<u>2320.81</u>	230B.55	2103.41	3.62	1.39	24.81	3.84	984.6
60 UTILITIES(33)	2494,43	+0.4	2484 97	2479.08	2451.37	2216 OP	4.97	2.07	12 18	35.13	1058.1
62 Electricity(12)	2778.41				2771.44		5.00	2.60		137.11	1360.7
64 Gas Distribution(2)	1591,45				1581.85		7.53	1.37	12.10	0.00	798.4
66 Telecommunications(7)	2068.22				2017.32		4.08	1.76	17.44	0.15	935.2
68 Water(12)	2127.61				2084.10				8.39	3.61	
							5.73	2.60			1153.8
69 NON-FINANCIALS(867)	1972.24	+0.3	1965 50	1958.63	1944.50	1591.14	3.77	1.89	17,52	11.38	1479.9
70 FINANCIALS(108)	2960.14	10.0	2955 51	2055.51	2938.56	2081 83	3.94	2.50	12.71	34.49	1264.5
71 Banks, Retalf(8)	4197.28				4157.57		3.69	2.83			1366.1
77 Banks, Merchant(8)	3529.95				3532.68		2.65	2.60	19.86	0.00	1106.1
73 Insurance(24)	1431,34				1419.76		5.40	2.94	7.89	21.10	
73 Insurance(24) 74 Life Assurance(5)	3586.59				3547.42		3.89	1.53	20.99	0.00	1064.8
77 Other Financial(23)	2542.00				2533.52		3.58		18.26	13.40	1451.8
	1452.60						3.58 4.30	1.97	18.26 22.25		1432.3
79 Property(41)					1451_27			1,31		3.48	883.0
BO INVESTMENT TRUSTS(126)	3154.28	+0.3	3143.80	31 <u>34.95</u>	3126.23	2547.63	2.14	1.04	56.23	10.77	1095.5
89 FT-SE-A ALL-SHARE(901)	1884.59	40.2	1959.92	1852 (*1	1840.77	1470 41	3.74	1.93	16.83	12.53	1559.5
				_	-						
FT-SE-A Fledgling	1157.48				1153.90		2,94	2.20	19.29	4.12	1200.1
FT-SE-A Fledgling ex Inv Trusts	1158.23	-0.3	1161.30	1158.65	1154,90	954.81	3.22	2.37	16.36	4.33	1200.0
■ Hourly movements											
_											
Open 9.00	10.00	11.0	70 12	2.00	15.00	14.00	15.00	16.1	o Higi	b/day L	ow/dy

ı												
ı	FT-SE 100	3786.4	3780.8	3788.4	3784.1	3779.2	3779.6	3772.5	3773.2	3776.4	3792.5	3771.5
	FT-SE Med 250	4261.1	4264,7	4268.8	4270.8	4274.2	4271.6	4270.2	4270.9	4272.0	4274.6	4261.**
Į	FT-SE-A 350	1891.6	1889.7	1893.1	1891.6	1690.0	1689.9	1887.0	1687.3	1888.7	1895.0	1886.£
I	Time of FT-SE 100 Day	's high. 10:2	n AM Day's	low: 1:55 i	PM. FT-SE	100 1996 Hi	gh: 3781_1 (	02/02/98) L	owr. 2954.2	<b>23</b> 01/85		•

<b>-</b>	r-wai r		, inch	may n	-	3						
	Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.70	Close	Previous	Chang
Bidg & Costron Pharmaceuticis Water Banks, Retail	5118.8 2117.0	5114.8 2118.4	5119.4 2117.3	5109.2 2117.9	5104.7 2115,4	1129.3 5110.3 2113.4 4253.3	5100,7 2112.1	5111.5 2113.2	5122.0 2118,8	5122.5 2120.8	5081.5 2103.1	41.4 41.4 17.3 12.3

		0	pen	Sel	t price	C	heg	0	High	1	Lov	ď		40f	Oper	ı int.
Маг		37	0.88	37	77.0		-5	:	3797.	0	3769	.0	130		424	165
Jun			91,0	37	79.5		-5		798	5	3775	.5	356		227	732 .
Sep		•	-	37	95.5		-5		-		-		0		23	55
e Fi	r-SE N	ND 2	50 IN	DEX	FUTL	JRES	Œ	FE) £	10 pe	e fufi	Inde	r poin	t.			
Mar		42	91.0	42	85.0		وريء	4	291.	0	4291	.0	23	)	. 29	18
Jun					01.D		+2.0		-		-		. 0		. 14	31 .
_	[-SE 1€	00 !	(DEX	OP1	ON (	LIFFE	37	76) 9	10 p	er full	Inde	x pok	nt			
	36	_	38	E0	37	20	37	<b>50</b>	36	200	31	850	30	00	- 39	60
	c	~_	Č	~P	C	P	3	P	C	P	C	P	C	P	G	P
lar.	180	2	132	3		612	5	1712	16	4012	3		1	131		181
lor .	179	1317	13712	21	100	33	62	51 ½	43	75 <sup>1</sup> 2	24	107	1212	14512	612	190
viay	19812	27	161		12512	53 <u>1-</u>	5	7Ç	6812	961 <sub>2</sub>		1241	31-2	160	1912	199
kun .	217		178	52	145	田石	1115	8742	. 89	112	66	138	46 1361 <sub>2</sub>	1/I 2006-	3212	205
Jec†	301				237	28 2			184.	175			130-2	ي بين		•
	094 P															
e e	JRO S	TYL	E FT-	SE 10	DÓ INI	EX	<u>on</u>	ON (I	JFFE	) £10	per		oex p	ORM		
	36	25	36	75	37			75	38	25		B75	39	25	39	75
	153	115	105 <sup>1</sup> 2	4	62	10¹z	8	26	7	55	112		1	148	ŧ	19742
kor	160 l <sub>2</sub>	1812	121	29	88 <sup>1</sup> 2	44	12	6412	3412	91		125	9	10412		
May	177		139 <sup>1</sup> 2	43	106		712	79	53 <sup>1</sup> 2	105	35	136	21 b		1212	212
-																

	3625	3675	3725	3775	3	B25	36	75	36	25	35	775
Mar Aor May Jun Seot	153 1 <sup>1</sup> <sub>2</sub> 160 <sup>1</sup> 2 18 <sup>1</sup> 2 177 31 200 <sup>1</sup> 2 49 240 <sup>1</sup> 2 75 <sup>1</sup> 2	121 29	82 10 <sup>1</sup> 2 88 <sup>1</sup> 2 44 106 58 <sup>1</sup> 2 129 75 <sup>1</sup> 2 176 107 <sup>1</sup> 2	11 <sub>2</sub> 64 71 <sub>2</sub> 7	9 531 <sub>2</sub> 76	55 91 105 1201; 1521;	:		41 7	148 184 <sup>1</sup> 2 171 184 209 <sup>1</sup> 2	121	1971 <sub>2</sub> 209 212
Calls 1	,388 Puts 2,6 detect expiry	76 * Linderly months.	ring Index val	u Premi				on <b>3</b>				
					7	RA	ЭIR	G	VC	LU	M	1

pyce 199116	Amt paid	Mart. cap	1965	/95		Ciase		Net	Div.	Grs	Æ
p	UP.	(£m.)	High	Low	Stock	p	4/-	ďv.	Φv.	yld	đ
-	F.P.	52.5	525		82W Eq (Brinda)	525	+13	-	-	-	
-	F.P.	6.28	612		†Bullynairey	6	.12	-	-	-	:
7.5	F.P.	14.7	812		Clubhais	6		+	-	-	١,
-	F.P.	0.07	$5\overline{1_2}$		Clubhaus Wrts	314		-	-	-	:
-	FP.	11.8	90	63	†Drnatek	63		•	-	-	
-	FP.	13.3	15	11	Éx-Lands Props	12		Lv0.5	-	5.2	
-	F.P.	0.18	1312	812	Ev-Land Wrts	812		-	-	-	
12	F.P.	56.8	1512	15	†Freepages	1512	+12	<b>v</b> -	-	-	
_	FP.	30.6	143		IOC #d	125	-	-	-	-	
-	F.P.	0.13	8	8	Nathan Polina Wirts	8		-	_	-	
-	F.P.	15.8	71	86	Optical Care (B)	68	-2	-	-	-	
-	F.P.	1.13	105	100	Revelation Polity	105		-	-	-	:
54		2.92	60	50	Self Sealing Sys	50		-	_	-	
175		125.4	223		Shire Pharms	206	<b>+2</b>	-	-	-	
-	F.P.	1.00	9	6	†SkyePharma Wirts	84	44	-	-	_	
180		111.5	188		Stragmine	180	-3	Wv7.7	1.7	5.3	į
Alterna	twe in		Market.	For a	tuil suptenstion of all		nholo	oleane n	afer to	The L	ne i
Share S						sous afer					

								-
								-
FT GOLD	WIN	ES I	NDE	X		į	=	; i .
	Mar 4	% ctg on day	Hier 1	Year ago	Gross div yield %	P/E ratio	52 v High	eek Lev
Gold Mines Index (33)	2268.57	-2.9	2337.81	1686.31	1,46	-	2520,73	16861
■ Regional Indices								٠.
	3095.37	-1.9	3155.30	2524.36	2.75	36.28	3553.86	22724
Africa (16)								
Africa (16) Australesie (5)	2838,72	-1.1	2861.03	1942_24	2.20	43.10	2927.34	19233

to 920p and Wetherspoon add	ਵਾ	و السمودي	DESCRIPTION OF THE PERSON OF T								
		ca (16)		3095.3	7 -1.9	3155.30	2524.36	2.75	36.28	3553.8	6 22724
a further 10 to 753p for		citalesia (5	)	2828.7	2 -1.1	2861.03	1942_24	2.20	43.10	2027.3	4 19295
two-day advance of 31. Allie	ed. No	th America	(12)	1955.8	5 -3.8	2032.39	1404.29	0.69	59.03	2186.3	9 14048
Domeco came off 2 to 512p.	as co						old Mines I				
stories about a line of stock of	Tim						ompanies.		Xollars, Ba	sse Value	s: 100C0
offer built up around the		12/92. T F	BOT IN	est pross	mate rus	Manage 10	r the editi	on.			
OTTEL DOTTE UP STAUTO D	TE										
TOTAL CONTRACTOR OF THE PARTY O			_								
FT - SE Actuaries Sh	are In	dices				1		1	he U	K St	eries
		Day's				Year	Div.	Net	P/E	Xdad∟	Tota
	Mar 5	chge%	Mar 4	Mar 1	Feb 29	<b>89</b> 6	yleid%	cover	ratio	ytel	Retu
FT-SE 100	3777.1	+0.2	3768.6	3752.7	3727.6	2977.0	3.89	2.06	15.59	25.03	1520.1
FT-SE Mid 250	4272.2	+0.6	4244.9	4236.4	4215,0	3327.9	3.45	1.74	20,80	35.56	1697.4
FT-SE Mid 250 ex Inv Trusts	4293.2	+0.7	4264.4	4258.2	4234.1	3335.5	3.57	1.79	19,50	37.89	1707.3
FT-SE-A 350	1889.0	+0.3	1883.1	1876.0	1864.1	1485.5	3.80	2.00	16.48	13.22	1555.3
FT-SE-A 350 Higher Yield	1882.5	+0.1	1880.3	1875.2	1864.4	1507.8	4.70	1.84	14.44	13.21	1286.3
FT-SE-A 350 Lower Yield	1901.0		1891.0				2.85	2.27			1307.2
FT-SE SmallCap	2069.46					1691.08	3.05	1.81	22.62	6.99	1678.3
FT-SE SmallCap ex Inv Trusts	2050.17					1672.04	3.26	1.90	20.21	6.52	1671.1
FT-SE-A ALL-SHARE	1884.59	+0.3	1858.83	1852.03	1840.77	1470.41	3.74	1.99	16.83	12.53	1559.5
■ FT-SE Actuaries Ali-S	hare										
		Day's			_	Year	Div.	Net		Xd adj	Tola
	Mar 5	chge%	Mar 4	Mar 1	Feb 28	ago	yleid%	COVEr	ratio	yid	Retu
10 MENERAL EXTRACTION(24)	3270.97	-0.5	3288.90	3284.17	3257.26	2573.05	3.96	1,51	20.93	22.56	1386.2
12 Extractive Industries(6)	4204.61	+0.7	4174.22	4171.31	4162.10	3351.20	3.77	2.39	13.84	85.48	1230.3
15 Oil, Integrated(3)	3306.01	-0.8	3333.25	3327.65	3295.72	2575.07	4.18	1.35	<b>22</b> .11	18.24	1433.3
16 Oil Exploration & Prod(15)	2241.48	-0.3	2249.11	<u>2247,99</u>	2234.47	1901.30	2.19	1.41	40.56	0.00	1330.3
20 GEN INDUSTRIALS(276)	2083.15	+0.4	2075.29	2071.86	2059.45	1769.48	3.98	1.89	16.63	4,94	1121.3

# FT-SE Ac	tuaries	350 li	ndustr	y bask	ets						
Time of FT-SE 100 Da	y's high. 10:2	n AM Day's	low: 1:55	PM. FT-SE	100 1996 H	igh: 3781_1	(02/02/98) L	ow: 2954.2	<b>23/01/85</b> ].		
FT-SE-A 350	1691.6	1889.7	1893.1	1891.6	1690.0	1689.9	1887.0	1687.3	1888.7	1895.0	1886.£
FT-SE Med 250	4261.1	4264,7	4268.8	4270.8	4274.2	4271.6	4270.2	4270.9	4272.0	4274.6	4261.
FT-SE 100	3786.4	3780.8	3788.4	3784.1	3779.2	3779.6	3772.5	3773.2	3776.4	3792.5	3771.5

Additional information on the FT-SE Actuaries Share Indices is published in Saturday issues.
The FT-SE Actuaries Share Indices are calculated by FT-SE international Limited in conjunction with the Faculty of Actuaries and the
Institute of Actuaries. © FT-SE International Limited 1996. All Rights reserved. The FT-SE Actuaries Share Indices are calculated in
accordance with a standard set of ground rules established by FT-SE International Limited in consumption with the Faculty of Actuaries
and the institute of Actuaries, "FT-SE" and "Footsie" are trademarks of the London Stock Exchange and the Financial Times Limited
and are used by FT-SE international Limited under licence. Auditor: The WM Company." † Sector P/E ratios greater than 80 and net
COURTS (treated than 30 are not shown it Values are penetive DELETION's Separation (Electrical, WINSTON, Transfers Classical)

For tender on 12 March 1996 The Bank of England announces the issue by Her Majesty's Treasury of ECU 1,000 million nominal of UK Government ECU Treasury Bills, for tender on a bid-yield basis on Tuesday, 12 March 1996. An additional ECU 50 million nominal of Bills will be allotted directly to the Bank of England for the account of the Exchange Equalisation Account. The ECU 1,000 million of Bills to be issued by tender will be dated 14 March 1996 and will be in the following maturities:
ECU 200 million for maturity on 11 April 1996
ECU 500 million for maturity on 13 June 1996
ECU 300 million for maturity on 12 September 1996

3. All tenders must be made on the printed application forms available on request from the Bank of England. Completed application forms must be lodged, by hand, at the Bank of England, Customer Settlement Services (formerly Securities Office), Threadneedle Street, London not later than 10.30 a.m., London time, on Tuesday, 12 March 1996. Payment for Bills allotted will be due on Thursday, 14 March 1996.

**TENDER NOTICE** 

**UK GOVERNMENT** 

**ECU TREASURY BILLS** 

4. Each tender at each yield for each maturity must be made on a separate application form for a minimum of ECU 500,000 nominal. Tenders above this minimum must be in multiples of ECU 100,000 nominal.

5. Tenders must be made on a yield basis (calculated on the basis of the actual number of days to maturity and a year of 360 days) rounded to two decimal places. Each application form must state the maturity date of the Bills for which application is made, the yield bid and the amount tendered for.

6. Notification will be despatched on the day of the tender to applicants whose tenders have been accepted in whole or in part. For applicants who have requested credit of Bills in global form to their account with ESO, Euroclear or CEDEL, Bills will be credited in the relevant systems against payment. For applicants who have requested definitive Bills, Bills will be available for collection at Customer Settlement Services, Bank of England after 1.30 p.m. on Thursday, 14 March 1996 provided cléared funds have been credited to the Bank of England's ECU Treasury Bills Account No. 59005516 with Lloyds Bank Pic, Bank Relations, St George's House, PO Box 787, 6-8 Eastcheap, London EC3M 1LL. Definitive Bills will be available in amounts of ECU 10,000, ECU 50,000, ECU 100,000 and ECU 10,000,000 nominal.

7. Her Majesty's Treasury reserves the right to reject any or part of any tender.

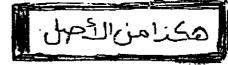
8. The arrangements for the tender are set out in more detail in the Information Memorandum on the UK Government ECU Treasury Bill programme issued by the Bank of England on behalf of Her Majesty's Treasury on 28 March 1989, and in supplements to the Information Memorandum. All tenders will be subject to the provisions of the Information Memorandum (as supplemented) and to the provisions of this notice.

9. The ECU 50 million of Bills to be allotted directly to the Bank of England for the account of the Exchange Equalisation Account will be for maturity on 12 September 1996. These Bills may be made available through sale and repurchase transactions to the market makers listed in the Information Memorandum (as supplemented) in order to facilitate settlement.

10. Copies of the Information Memorandum (and supplements to it) may be obtained at the Bank of England. UK Government ECU Treasury Bills are Issued under the Treasury Bills Act 1877, the National Loans Act 1968 and the Treasury Bills Regulations 1968 as

Bank of England 5 March 1996

.



	WORLD STOCK MARKETS
	BUROPE Control 178 30 -1 20 181 12120 34 Control 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20 188 30 -1 20
	230 5.860 3.7 Oxy E
33500	
	technology is helping railroads improve performance and promote safety  **Control of the property of the prope
	## 25 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1
	## 1407 0 -120 2136 1919 12 2
Section   Sect	## Pages   Pag
	## PARTICIPATION   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95   1017-95
	## CAMPAGE OF LINES    Fig.

9% 5 Hovacara 36 22% Novold8 18% 13% No Ca Mass

(8)<sub>5</sub> 13½, NV C2 Mess 324, 42 New Com 19¼, 14½, NW Com (6½, 13½, New Com 12½, 13½, New Com 11½, 3½, New Com 11¼, 3½, New CM 15¼, 13½, New CM 15¼, 13½, New CM 22 15½, New CM 25½, New CM 25½

6408MCm

-0-

17 184, 44 16 38 121, 189 154, 193 11 31 177, 252 151, 389 201, 289 201, 282 201,

Bene 有有有有不不可以有不多的人

31 \(\frac{1}{2}\) + 2\(\frac{1}{2}\) + \(\frac{1}{2}\) \(\frac{1}{2}\) + \(\frac{1}\) + \(\frac{1}2\) + \(\frac{1}2\) + \(\frac{1}2\) + \(\frac{1}2\) + \(\frac{1}2\) + \(\fr

| The color of the IFAT AGENT TO AGENT T 30% 2012 Annid Coal x 39% 3012 Annid Coal x 39% 3012 Annid Coal x 175 117 Ann Par F 378 119 Anni Par F 378 119 Anni Par F 378 119 Annia Gas 14% 512 Annia Gas 15% 612 Annia Gas 2 0.48 2.0 10 1.40 22%
1.10 20 42 2491 354
0.04 0.3 238 144
0.3611.5 6 507 34
1.32 2071918354 644
2.280 1.1 2 522½
1.06 5.7 18 556 18%
0.28 2.4 10 12 114
1.54 8.2 16 783 19%
5.50 4.9 13 3873 1112
1.10 1.50 114
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1.50
1.50 1.50 1.50 1 

.18 +114 .78 .19 +18 .1-2

- F -

20% 112 20% 25% 25% 27% 11 13% 16 71 80%

22% 12% EP inc
28% 19% P Tim
10% 9 9 TT Prophy
5 2% 32% IV
14% 32% iden Corp
22 33% iden Corp
23 30% iden Corp
23 30% iden Corp
24 30% iden Corp
25 30% iden Corp
25 30% iden Corp
25 30% iden Corp
26 30% iden Corp
27 30% iden Corp
27 30% iden Corp
27 30% iden Corp
27 30% iden Corp
28 30% iden Co

784. F7 Se High Lear 415374 31½ 31 1.1 29 220 4764, 7154 42½ 41½ 5.9 13 11¼ 11½ 1.9 13 7 1061 42½ 41½ 5.9 13 15 11¼ 11½ 1.9 12 7 15 11⅓ 90 21 30½ 30½ 30½ 30½ 31½ 3056 20 25% 14 760 77% 77½

.58

54-2, 39% Houghlan M
14, 14, House Rab
701-2 35% Hishal I
16-16 10% House Rab
15-6 10 Burly Corp
301-2 174, Hughes Sup
25-6 17 Humana
18-8 125% Humanagen
18-8 125% Humanagen
18-8 125% Humanagen
18-8 18-8 Hyperion

**₊**1<sub>2</sub>

| Telephone | Tele

Chippe Press. Close of the Section o

0.66 2.1 16 857 0.481535 0 109 1.36 1.9 18 2343 u 0.16 1.2 22 2100 0.08 0.6 11 4947 0.34 3.1 13 249 0.28 1.0 13 22 1465 55.3 2110125 0.38 2.3 17 311 0.22 4.2 2 12 0.84 9.2 215 70<sup>1</sup>9 13<sup>5</sup>9 13<sup>7</sup>8 10<sup>7</sup>9 28<sup>1</sup>2 25<sup>1</sup>8 16<sup>5</sup>6 5<sup>1</sup>4 

1312444 古祖 计记录计算法 医女子 经有时的存在的过去式和 计 打印的 يا. را

51 2 34 p PM 4 34 p PM 6 in 12 8 2 p PS Group 15 13 p PS Group 15 13 p PS Group 15 13 p PS Group 15 p PS Group 15

1.36 2.7 11 432 50%
1.20 2.5 12 1523 47%
0.90 8.0 20 30 10<sup>14</sup>
1.7 1.18 7.9 4.3 115
0.12 0.5 22 207 23
1.08 52 12 1504 20%
1.36 5.0 12 1306 27%
1.36 5.0 12 1306 27%
1.36 7.5 11 6898 20%
1.36 7.5 11 6898 20%
1.36 7.5 11 6898 20%
1.37 1197 20%
0.42 1.5 24 2896 22%
0.90 3.1 14 1222 29%
1.00 2.1 14 1222 29%
1.00 2.1 10 1575 20%
1.0 10 1575 20%
1.1 10 2891 23%
1.10 2891 23%
1.10 2891 23%
1.10 2891 23%
1.10 2891 23%
1.10 2891 23%
1.10 2891 23%
1.10 2891 23%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12% 12%
1.10 11 13 12%
1.10 11 13 12%
1.10 11 13 12%
1.10 1 1.66 4.0 17 682 42\( \frac{1}{2}\) 1.66 6.3 40 3404 25\( \frac{1}{2}\) 24\( \frac{1}{2}\) 1.66 6.3 40 3404 25\( \frac{1}{2}\) 24\( \frac{1}{2}\) 1.67 6.3 40 3404 25\( \frac{1}{2}\) 24\( \frac{1}{2}\) 1.67 6.3 40 3404 25\( \frac{1}{2}\) 24\( \frac{1}{2}\) 1.62 0.2 40 26 37\( \frac{1}{2}\) 39\( \frac{1}{2}\) 1.68 21 13 2377 52\( \frac{1}{2}\) 1.69 15 24 15\( \frac{1}{2}\) 1.67 15 24 15\( \frac{1}{2}\) 1.67 15 24 15\( \frac{1}{2}\) 1.67 15 30 33\( \frac{1}{2}\) 1.60 15 24 15\( \frac{1}{2}\) 1.67 15 30 39\( \frac{1}{2}\) 1.60 102\( \frac{1}{2}\) 1.60 12\( \frac{1}{2}\) 1.60

- S =

0.80 5.8 4 18 14 137;
128 2.3 24 106 551, 55
1.19 142 7 94 83, 81,
2 329 507, 50
0.36 2.5 18 512 1412 1412
21 3586 2814 2875,
19 15 13
10 0.3 25 131 6112 6014
18 5.6 11 3 321 2815
1.50 2.8 10 1212 5816 375,
1.50 1.9 15 2873 531, 831
1 0.92 2.5 28 717 137, 137,
0.54 1.7 14 1715 381, 835,
0.54 1.7 14 1715 381, 835,
0.54 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 835,
0.55 1.7 14 1715 381, 8

13% 55½ 8½ 50½ 14½ 29¼ 61½ 32½ 33 13½ 13½ 13½ 中 大學 李 大小小小小

5 0.89 8.9 361 10½
10.67 9.3 133 7½
9 33 9½
1.258 7.1 1.3 325 36½
0.56 4.3 17 361 13
1.00 21 9 40 47½
0.40 3.1 8 5433 12½
0.40 19 10 1001 21¾
0.60 3.2 76 97 18½
0.18 1.5 21 34 11¾
9 2207 42¼
0.50 4.6 59 89 17%

THE PARTY OF THE P 

| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 521g 3714 J New PF 53 391g J River L 137g 774 Jackpot En 281g 1714 Jackpot En 101g 714 Jackpot En 101g 714 Jackpot E 581g 33.57 Jest 1034 29 Jackpot 2 751g 4514 Jackpot x 101g 531g Jackpot x 101g 531g Jackpot 2 12 71g Johnston 251g 1714 Josiess In Tataland de tataland **(S)** - G -39 la 24 la ISAN R Dick 31 la 20 la ISB Burry 70 ST la Fanch 4.5 25 la 26 la Fanch Pr 32 la 12 lanch Pr 34 la 12 lanch Pr 20 14 la Isanch Serv 27 la 21 la Isanch Serv 27 la 21 lanch Serv 27 la 21 lanch Serv 18 la 43 lassker 18 7 Tanjan Serv 18 la 23 lanch Serv 34 la 22 lanch Serv 34 la 22 lanch Serv 35 la 22 lanch Serv 36 la 21 lanch Serv 19 8 la ISBN AUR 2 22 la 13 lanch Serv 13 la 11 la Isanch Serv 13 la 14 la 22 la Isanch 20 la 18 la Isanch 20 la Isanc 好水水水 人名英格 医中部中部外外 经存款 不是 幸 本本 本本 本本本本本本本 17% 11% S Auto Rt
56% 25% SYS Te
10% 7% Satiste Rt
53 11% Saley & Sc
10% 32% Styl
30% 33% Satiste
15% 7% Satiste
65 52% Siles Satist
65 52% Siles Satist
65% 25% Sales Cp
65% 25% Sales Cp +14 158

Sheraton Brussels Airport When you stay with us in **BRUSSELS** stay in touch -

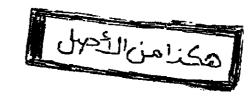


The state of the s

And the second s

e ef uh

4



. 4		→ 1,000AT MARCH 6 1996 ★	29
	4 pm close March 5	NYSE COMPOSITE PRICES	NASDAQ NATIONAL MARKET 4 pm close March 5
	1965    Seminar   1965    Se	Column	Since: UN Size  Size
	Sinck Div. E 1900 Righ Low Glove Ching Adv Magn 152 23 247g 247g 247g 147g 147g 147g 147g 147g 147g 147g 1	22 21-21 - 1-4	Martine   1   20   20   20   20   21   21   21
	Gain the edge over yo	r competitors by having the Financial Times delivered to your home day. Hand delivery services are available for all subscribers in the sinki and Espoo. Please call +49 69 15 68 50 for more information.  Business Newspaper.	Companion 32 58 33 45 45 65 65 65 65 65 65 65 65 65 65 65 65 65

## **Technology** issues stage bounce back

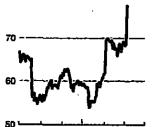
#### **Wall Street**

US shares shrugged off a drop in bond prices and rose by midsession as technology shares bounced back from several weak sessions, writes Lisa

Bransten in New York. By I pm the Dow Jones Industrial Average was 5.42 stronger at 5,605.57, the Standard & Poor's 500 added 0.29 at 651.10, and the American Stock Exchange composite rose 0.28 at 567.32. Volume on the New York Stock Exchange came to 245m shares.

The bond market slipped in early trading after strongerthan-expected figures on December and January factory





orders persuaded some investors that the Federal Reserve was unlikely to lower interest rates at this month's meeting of its Open Market Committee. Meanwhile, the Nasdaq composite, which is about 40 per cent technology issues added 6.69 at 1.091.48 to reverse a bit of the 16 points it has lost this

The Nasdaq was bolstered by gains in both the computer-related technology sector and the biotech sector.

The Pacific Stock Exchange technology index, which includes both Nasdaq and NYSE-traded technology issues added 1 per cent as large issues such as IBM and Microsoft

#### rebounded from recent weak-

In early trading IBM was \$21/4 stronger at \$118% and Microsoft added \$1% at \$97%. Biotech issues were lifted by

a wave of approvals from the Food and Drug Administration. The American Stock Exchange biotech index added 1.8 per cent. Chiron rose \$21/4 at \$112% after the FDA approved the marketing of an eye implant developed by the company. Other rising biotech companies included Amgen, up \$21/4 at \$63% and Biogen, \$3%

stronger at \$71½. Elsewhere. W.R. Grace soared \$9% or 14 per cent to \$781/2 after it said that it would not merge with Hercules. Mr Thomas Gossage, chairman of Hercules and a member of Grace's board, resigned his

position at Grace leading to speculation that his company might launch a hostile takeover bid. Shares in Hercules slid \$% at

BankAmercia added \$1% or 3 per cent at \$77%. Late on Mon-day the bank announced that it would buy back up to \$2bn of its common stock and \$1bn of preferred stock over the next two years.

#### Canada

Toronto was weak at midses-sion in restrained trade ahead of today's federal budget.

The TSE-300 composite index was down 17.06 by noon at 4,962.80 in volume of 35.8m shares.

Cyclicals were heavily traded, including Echo Bay Mines which fell C\$% to C\$m 17%. Denison Mines, the uranium miner, slipped 1 cent to 47 cents after Monday's rapid

Forzani Group, the sporting goods retailer, was sharply lower for a second straight day. The shares fell 50 cents to C\$3.25 on reports that the company was facing a cash crunch after a disappointing sales sea-

#### **Buenos Aires falls back**

BUENOS AIRES was slightly lower by midsession as brokers said that the market was taking a well earned pause after heavy gains in the last two sessions. The Merval index was off 3.00 at 524.78 by midday.

Inflation and trade data released late on Monday investors were watching the US for direction.

SAO PAULO was also mixed in midsession activity. By mid-session was little changed by

Many investors were cautious ahead of testimony by the head of the central bank, Mr Gustavo Loyola, to congress on the Banco Nacional failure. The central bank has come under heavy fire recently for allegedly failing to detect a Banco Nacional over a 10-year period. MEXICO CITY was down 1.5 per cent by midses-sion, with the IPC index off

#### S Africa golds tumble

FT/S&P ACTUARIES WORLD INDICES

Pound Sterling Yen Index Index

134.74 123.87 141.20 106.87 103.55 121.55 121.56 125.53 115.10 292.12 173.86 99.08 357.21 738.89 186.62 54.25 158.72 297.11 288.26 109.36 274.56 134.97 120.42

196.70 150.62 206.12 156.01 156.03 177.44 185.16 168.03 426.44 252.67 75.63 144.94 521.46 1078.36 272.42 72.42 73.77.72 159.68 327.82 175.79 226.23 175.79 226.23

Johannesburg was depressed by a 5.4 per cent tumble in the gold index as industrials, too, gave up early advances, dash-ing hopes that the sector could resume the strength with which it had begun the year.

Analysts noted that activity had been generally quiet, which accounted for some of the market's volatility, with local and foreign institutions

clearer trend emerged. They added that gold shares would continue to slide until the bullion price managed to lift itself above the \$393 to \$394 range in which it had set-

NATIONAL AND REGIONAL MARKETS

Figures in parentheses show number of lines

Australia (81)......

haly (59) Japan (482) Majaysia (107) Mexico (18)

Sweden (47)

USA (831).....

.203.21

ci stock

remaining absent until a

tled following its collapse late

announced that it would report a material loss in the year to March 31, 1996, Telioy said on Monday that the exec-utive chairman and founder,

The all-share index lost 67.0 to 6,651.6, industrials fell 32.2 to 8,333.3 and the golds dropped 94.9 to 1,668.6. De Beers ended 75 cents weaker at R122.50 on results.

Shares in Teljoy Holdings lost R1.15 or 21.3 per cent to R4.25 after the company Mr Theo Rutstein, and the managing director, Mr Denis Kennedy, were resigning.

Local Local Currency % chg Index on day

155.55 177.47
143.00 142.83
163.00 7.58.91
123.38 2291.02
119.19 154.27
32.66 233.16
140.24 176.37
146.42 151.44
132.86 337.24 436.29
198.62 233.26
141.38 92.08
412.38 527.03
852.78 999.33
215.45 216.85
163.24 208.31
343.00 209.95
163.24 208.31
343.00 209.95
126.26 164.38
183.24 208.31
343.00 209.95
126.26 164.38
183.24 208.31
173.90 177.22
178.91 177.36
139.01 177.22
178.91 177.36
139.01 177.36

161.18 198.08 201.88 137.18 158.37 176.89 163.80 223.74 254.70 108.39 125.13 111.52 120.32 138.90 137.01 172.22 198.82 258.49

0.4 202.01 138.38 159.75 177.13

158.57 178.89 223.74 254.79 125.13 111.52 138.90 137.01 198.82 258.49 143.71 182.31 223.45 255.07 139.94 141.23 157.91 172.31 184.86 227.00

## Amsterdam flattens out, Hunter Douglas climbs

After a good start, AMSTERDAM bumped into negative factors, such as a growing conviction that the US would probably not cut interest rates in the near future. The AEX index finished up a scant 0.13 at 519.18, after a hìgh

Hunter Douglas, the maker of window blinds and architectural products, rose Fl2 or 2 per cent to Fl96.70. The company reported a much stronger than expected 1995 profit, lifted its dividend and made an encouraging statement about prospects for 1996, particularly in the emerging economies of Latin America and Asia. However, it was a different

story at Hoogovens, the steel and aluminium group, which fell Fl 2.50 to Fl 66.10 ahead of tomorrow's results. Brokers described the fall as a technical correction following the stock's 25 per cent rise since the start of the year. VNU, which reported 1995

results in line with forecasts just after the market closed, was 40 cents higher at Fl 28.70, OSLO saw the rise and rise of Kvaerner B, up another NKr7 at NKr205, which helped the total index reach a lifetime, intraday peak of 783.32 before it closed 1.05 higher at 779.07. Attention shifted to Aker. another offshore blue chip,

towards the end of trade; more

**Hunter Douglas** Share price and index rebased CBS General

Nov 1995

than 4m Aker shares were traded as the A closed NKr2 higher at NKr121.

HELSINKI featured gains in the telecoms blue chip Nokia A. up FM3.60 at FM165 on a US network order, and in Kone, the elevator marker, which climbed FM15 to FM450 on strong demand, as the Hex index closed 10.65 higher at 1,846.87. However, the apparent fading of recently strong US interest in Raisio, the foodstuffs and chemicals group, left it FM19, or 12 per cent lower at

ZURICH turned back from a firm opening and the SMI gave up 17.2 to 3,383.4 on profit-taking after the strong run which had taken the market to an all-time high on Monday. CS Holding, with 1995 results in line with most expectations, finished SFr2.50 weaker at SFr112.50 as a number of small portfolio management banks downgraded their recommendations. They were said to have reservations about the bank's method of accounting for extraordinary provisions of

SBC lost SFr5 to SFr440 but UBS bearers edged SFr1 higher at SFr1,291 on continued speculation that a truce has been forged between the bank and its largest sharebolder, the BK Vision chairman, Mr Martin Ebner. BK Vision rose SFr9 to SFr1,555. A SFr5 jump in the UBS registered shares was attributed to heavy buying by

a small Zurich bank. Industrials were weak. Brown Boveri losing SFr11 to SFr1,426 on foreign selling. Swissair dropped SFr37 to SFr1,118 on profit-taking after recent strong gains.
FRANKFURT lacked impetus

again, and pushed secondary stocks around as the Dax index fell 14.31 to an Ibis-indicated 2,472.52 in turnover up from DM7.4bn to DM9bn. The bad news about Fielmann's profits growth rate left the optician another DM1.90, or

2.7 per cent lower at DM68.90

FT-SE Burgoack 100 1598.97 1597.11 1595.02 1590.92 1590.64 1586.60 1587.95 1588.41

SFr575m, which were written off against the shareholder

after a 15.7 per cent drop on Monday afternoon. This, said Ms Barbara Altmann at B Metzler in Frankfurt, impacted on analysts' feelings about other companies and the sportswear company, Adidas, dropped DM4.30 to DM94.20 after a strong run. Duetsche Babcock, the trou-

bled engineer, continued to be sensitive to any sort of bad news and fell DM3.60, or 3.7 per cent to DM93. But the likely reference of Gehe's LLoyds Chemists bid to Britain's competition authorities left the German company DM10 higher

PARIS felt the burden of technical selling late in the day but the CAC-40 index just manmaged to keep a tenuous grip on the 2,000 level, closing off 13.37 at 2,001.94. Turnover was FFr4.6bn.

Valeo featured again as both Renault and Peugeot threatened to move their husiness to another supplier if the car

over by a company they thought was unsympathetic. Valeo, which lost FFr9 to FFr259.80, had been subject to a series of rumours after Cerus of Italy, part of the De Beneditti group, indicated that it might sell its 28 per cent stake. Peugeot rose FFr11 to FFr791 and Renault put on 50 cen-

parts manufacturer was taken

THE EUROPEAN SERIES

Fab 27

13.00 14.00 15.00 Close

Wer 1

Mar 4

MADRID stayed upset, and the general index fell another 4.98, or 1.5 per cent to 324.10. Sector by sector, Monday's victims were singled out again, with banks off 1.4 per cent, construction 2.1 per cent, and

utilities 2.4 per cent down. However, the market also caught up with stocks which held up remarkably well on Monday, said Ms Nicola Mann at Merrill Lynch. Gas Natural and Pryca, the retailer, lost 5.1

and 3.4 per cent respectively.

MILAN was pulled back from its highs by profit-taking after volume picked up on renewed

real-time Mibtel index turned back from a peak of 9,933 to finish 43 higher at 9,875. Eni picked up L57 to L6,007 on Monday's preliminary 1995 results that were in line with expectations. Benetton rose L240 to L18,909after forecasting

foreign demand. The Comit

index rose 9.09 to 620.92 but the

a 5 to 6 per cent rise in 1995 profit. Fiat, which a rise in the price of its cars, rose L69 to L5,062. selp is o PRAGUE rose for the seventh consecutive session, the PSE index gaining at 1.0 to 475.6. Leading stocks all did well. Ceska Sporttelna, the

savings bank, dropped a fur-ther Kcs9 to Kcs206. Dealers had expected a readjustment in and from the price after last week's strong gains.
BUDAPEST extended the rise made at the start of the week and the Bux index finished at another all-time high. up 65.37 at 2,347.34. Turnover almost doubled, jumping to Ft1.35bn from Monday's

Ft695.7m. The appointment of a new finance minister, Mr Peter Medgyessy, has restored inves-tor confidence in the country, particularly from foreign insti-

Written and edited by William Cochrane, Michael Morgan and

threath

## Nikkei average and Hong Kong make solid progress

#### Tokyo

The Nikkei average gained moderately on technical buy-ing, which counterbalanced selling of high technology and banking stocks, writes Emiko

Terazono in Tokyo. The 225 index rose 119.99 to 20.183.87, after moving between 20,069.76 and 20,303.87. However, weakness in the banking sector depressed other indices, with the Topix index of all first section stocks down 1.96 to 1,554.08 and the Nikkei 300 retreating 0.58 to 289.04.

In London, the ISE/Nikkei 50 index fell 1.10 to 1,352.85. A decline in the high-technology sector in overnight trading on Wall Street prompted profit taking in electricals, while continuing uncertainty over the government's budget bill, which contains the controversial public spending plan to bail out housing loan companies, hit bank stocks.

Volume was estimated at 350m shares against 266.2m. Advances led declines by 511 to 487, with 206 unchanged.

Reports that the ruling coalition and the banks had housing loan bailout plan, failed to raise confidence. In order to avert criticism by politicians, banks agreed to an additional bailout contribution of Y500bn by raising profits by Y1,000bn over the next five years through restructuring. The extra profit would then be channelled to the government

in the form of corporate taxes. Among the banks Industrial Bank of Japan, the day's most active issue, fell Y10 to Y2,650, Mitsubishi Bank lost Y20 to Y2.200 and Bank of Tokyo Y70

In technology stocks, Toshiba dropped Y3 to Y801 and Fujitsu lost Y10 to Y1,060. Semiconductor-related stocks were also lower, Advantest declining Y130 to Y5,560. Speculative stocks gained ground on active trading. Toyo

Umpanki rose Y11 to Y570 and Shinko Electric Y25 to Y835. In Osaka, the OSE average fell 13.69 to 21,572.83 in volume

US Dollar Index

Pound Starling Index

240.24 255.35 175.47 201.98 253.24 256.11 197.20 240.10 222.91 180.05 184.23 201.83 245.54 180.00 265.22 200.24 137.50 188.38 178.85 205.81 169.53 252.22 283.47 194.79 224.22 263.80 265.02 222.22 185.38 158.47 108.59 125.35 111.96 171.67 148.88 181.20 175.77 120.79 139.04 137.28 163.39 158.49 158.62 255.53 248.85 171.00 198.84 255.88 282.28 192.77 157.74 182.12 125.15 144.06 182.62 187.87 182.82 258.78 281.08 193.15 222.34 253.50 262.69 229.25 182.51 177.04 121.88 144.06 182.62 187.87 182.82 249.25 182.51 177.04 121.88 144.06 141.45 184.71 159.65 204.99 198.85 136.65 157.29 171.73 207.64 170.18 239.19 232.03 159.44 183.53 223.68 242.17 187.65

03 2.12 207.37 201.16 138.23 159.12 176.52 209.73 172.24 173.16

Gross Div. Yield

3.80 1.60 3.32 1.59 2.44 1.97 3.08 1.82 7.57 1.50 1.51 4.63 2.45 3.13 3.85 1.56 1.56 4.04 2.18

2.17 2.99 2.13 1.20 2.05 2.18 2.42 2.90 2.08 1.99 2.51

of 219.5m shares. Nintendo, the video game maker, fell Y90 to Y7.020 on profit taking.

#### Roundup

FM142.

An index futures short squeeze and further talk of covered warrant issues took HONG KONG 1.8 per cent higher. The Hang Seng index surged 200.03 to 11,454.08 as turnover improved to HK\$5.8bn.

HSBC, the most highly capitalised issue, jumped HK\$1.50 to HK\$127. Its Hang Seng Bank unit soared HK\$1.75 to a peak for the year of HK\$79.50 on foreign buying. Hutchison and Henderson Land climbed HK\$1. to HK\$50.50 and HK\$58 respec-

TAIPEI lost 1.3 per cent after China announced that it would conduct ground-to-ground missile tests, at sea and just off the island, between March 8 and 15. The weighted index lost 62.49 to 4,792.74. Turnover was T\$26.6bn. Brokers noted that a T\$200bn

government-backed stock market stabilisation fund had entered the market to prevent a steeper fall. The index was lower

heavy self-off, especially on high-technology electronic issues started to emerge one hour before the close. Electronic shares, which had been affected by worries about the future of the semiconductor industry, lost another 2.6

per cent as a group, Winbond slumping 6.8 per cent to T\$61.50 and Mosel losing T\$3, or 5 per cent at T\$57. But the plastics issue, Taiwan Polypropylene, rose

T\$1 or 1.8 per cent to T\$55.50. SYDNEY fell back, pressured by a lower gold price and the prospect of a mini-budget by the new government.
The All Ordinaries index

slipped 15.4 to 2,308.0 in turnover of A\$626.7m. Brokers felt that the prime

minister-elect, Mr John Howard, could demand a mini hudget on fears that the current year to June budget would produce a deficit, rather than the surplus previously fore-

#### The gold index fell 65.5 at 2,146.7, with Placer Pacific 12 cents lower at A\$2.67 and Dominion down 15 cents at

SINGAPORE moved ahead on selective demand for blue chips in volume that almost doubled to 146m shares. The Straits Times Industrials index rose 10.10 to close at the day's high of 2,432.38.

The index benefited from a 60 cent rise to S\$12.90 in Cerebos Pacific, while Fras-er & Neave gained 20 cents to

KUALA LUMPUR remained at a 16 month high as programme buying pushed the composite index up 17.49 or 1.6 per cent to 1,124.39.

tions were again active, accumulating blue-chios, as retail investors consolidated their positions after the recent buy-

SEOUL was pulled higher by advances in Samsung Electronics and other blue chips in otherwise gloomy trade. The composite index rose 2.62 to 857.72 but decliners overwhelmed advancers 516 to 209 while volume remained thin at 16.9m

Samsung Electronics led the way for blue chips, gaining Won5,500 to Won135,500 after Monday's news that the company would buy back 2.7m of its own common and preferred

Tae Hwa fell Won160 to its

Dealers noted that institu- lower limit of Won2,580 on rumours that the company would be placed on exchange's supervision list, due to poor performance.

BANGKOK was weaker in

thin trade as poor domestic economic data and disappointing 1995 corporate results kept many investors on the side-

The SET index lost 14.20 at 1,311.66 in turnover of Bt3.8bn. The commerce ministry on Monday announced that the consumer price index had risen 7.4 per cent year-on-year in February, unchanged from the previous year; and yesterday the central bank said the current account deficit had widened to Bt335.7bn in 1995 compared to Bt203.2bn in 1994.

Brokers said that poor earnings results by several compaand building sectors had depressed sentiment.

MANILA was in a holding pattern as investors digested news of a rise in February inflation figures. The composite index made 2.85 to 2.908.68 Volume narrowed to 5.8bn shares worth 1.8bn pesos.

SHANGHAI's hard currency B index was weak on selling triggered by worries over the outlook for corporate results. The B index lost 0.097 to 52.141 while the A index gave up some of Monday's 9.3 per cent bounce, falling 16.041 to 607.171

Bombay was closed for a

# Year-End Report 1 (

Increase in pre-tax results by 44 percent, to MSEK 594 (413). Profits per share increased to SEK 11.00 (6.70). The proposed dividend is SEK 4.00 (3.00).

#### Sales

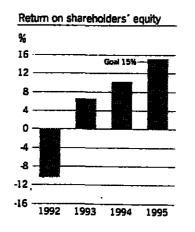
Sales for the Group totalled SEK 12,154 million, an increase of just over 4 percent from 1994 based on comparable units and exchange. The United States deserves special mention because of the success they have enjoyed. Tough streamlining and development work over the years have now provided results. This was combined with successful marketing and sales activities in 1995. The Nielsen & Bainbridge division showed high return on capital employed, 31 percent (24.1).

Return on shareholders' equity rose from 10.1 percent to 15, thus reaching the Group's target.

Office Products increased sales by 6 percent. The operating margin was 6 percent (3.8). The reasons for this positive development were a general improvement in demand and stronger market positions.

Retail Supplies and Equipment (Meto) reported a 2 percent increase in sales. The operating margin was 5.4 percent (6.6). Sales were weak in Germany, Meto's largest market, but increased in France.

Picture Framing Business Area (Nielsen & Bainbridge) increased sales by 3 percent. The operating margin was 14 percent (12.2). Markets in North America and Europe developed



The Annual General Meeting will be held on the 8th of May in Stockholm

The Annual Report can be ordered from Esselte AB, Group Information, Box 1371, S-171 27 Solna. Telephone: +46 8 27 27 60. Fax: +46 8 82 56 32. Also available on Internet http://www.esselte.com

Essette is one of the largest suppliers in the world for office products, labelling systems and picture frames. Esselte is a public company listed on both the Stockholm and London Stock Exchanges, with 10,000 employees in 25 coun-



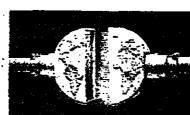
View from the top Sir Peter Bonfield of British Telecom



Digital systems Raw power of the information age Pages 4-15

Software at work

Helpdesks Keeping the show on the road



Directions Network

Strategies and options

Stockwatch ff companies How shares are performing



esday March 6 y

as climb

t progre

K 594 (413).

## Information Technology

Wednesday March 6 1996

## Help is on hand from intelligent agents

Just as digital technology threatens to swamp us with information, advanced computer software may also provide a way to sift, sort and manage data in the information age, writes Paul Taylor

he digital revolution is having a profound impact on the sheer volume of data confronting businesses and individuals.

Electronic mail, the Internet and the arrival of digital broadcasting represent an information avalanche which together threaten to engulf us. According to conservative estimates, the amount of data - text, pictures, video and sound - is doubling every three years leading to what

Managing this glut of data - and sifting out important material - is crucial for many organisations which depend on processing information in order to survive. However, over the past few years, a particular an intelligent, or information, agent has emerged from the laboratory which could alleviate the problem. Ovum, the UK-based technology

consultancy, defines intelligent agents as "objects that think". They comprise a self-contained software programme or routine which is responsible for executing part of a process while making use of information contained in a knowledge base. These intelligent agents typically operate in a distributed computing or client-server environment and address self-contained tasks, working in a semi-autonomous manner and communicating with the user and system resources.

More advanced intelligent agents may communicate with each other, and co-operate to carry out tasks beyond the capability of a single agent. Some intelligent agents have the capacity to acquire their knowledge through learning.

While the commercial application of intelligent agents is still in its infancy, the technology has its roots in the research into distributed artificial intelligence undertaken at the Massachusetts Institute of Technology and elsewhere.

"Intelligent agents are an interesting by-product of artificial intelligence, an area of technology which has traditionally been perceived as one with little impact on business," says Dominique Verdejo of Ilog, the software development tools com-

pany, "Intelligent agents are now being increasingly integrated in various industrial applications, most notably in the telecoms sector and for developing enhanced services on the fast-growing Internet."

In the last couple of years, companies such as AT&T, Apple Computer, British Telecommunications, Hewlett-Packard, International Business Machines, Logica and Microsoft have begun to deliver key products and supporting technology.

Other information agent specialists include California-based Verity and executive information system suppliers such as Planning Sciences and Comshare which have begun to build intelligent agents into their In the telecommunications mar-

sion, filtering and correlation capabilities are being used to automate processes in network management. US Sprint, for example, has designed a wide area network supervision application called Clearline, using an intelligent agent to correlate alarms and detect the origins of communications failures.

"Intelligent agents are also being used in the area of electronic commerce," says Ilog's Verdejo. "They are able to move from one machine to another, bringing with them encapsulated data and miles which allow them to negotiate on behalf of their owner in electronic transac-

Elsewhere, banks are using intelligent agents to make loan decisions and manage credit risk However, managing information

is probably the biggest and most immediate market for intelligent agents. Among specific applications, the Office of Media Affairs at the White House receives hundreds of requests for information via the Internet each day. It redirects these requests through an agent-based publication server at MIT that uses formal language techniques to determine which documents the authors

should receive. BT, along with several other developers such as Intell.X, has developed a programme which it claims "offers effective answers to 'information overload' - where peomuch information

an information searches texts stored on a computer select those of most interest to the operator, and can abridge text to a fraction of its length without

abstracts that an shown abridgment down to five per cent of the cally contains some 70 per cent of the original's important information while a quarter length summary keeps virtually all the information.

fessions and business functions where fast, data has brought huge advantages in terms of availability, but there is a parallel disadvantage as well," said Keith Preston, of BT's natural language group when the Summariser technology was

unveiled last year.

"There are many pro-

"The fact that there is now so much 'on tap' means it threatens to overwhelm the very people who need to absorb it - whether they are doctors or dentists needing to keep abreast of the latest research, lawyers collating case material or samen sifting through company and market information."

Others to exploit this new agent technology include Comshare, the decision support specialist. It has added a feature called 'Detect and

Predental
THE SOFTWA pro-IN OPERATION

> executive information system, financial reporting and retail planning applications which run

client/server networks. Detect and Alert software agents, which Comshare calls robots, perform time-consuming, repetitive tasks and monitor targeted databases for significant changes. When a change is detected, an alert can be flashed to the user or flagged in a user's personalised electronic news-

paper "Agent-based systems represent the next generation of strategic

weapons for information management." says T Wallace Wrathall, Comshare's chief execu-

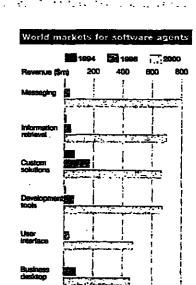
Planning Sciences - formed by a group of former Lucas Industries software engineers - have already taken the technology a step further, building wandering information agents capable of working across a geographically dispersed network, into its latest version of Gentium, a highly sophisticated enterprise

information system. "Given the amount of information managers are asked to absorb, this type of programme is becoming essential," says Mr Ian Rawlings,

ences marketing director. Companies are looking for a competitive edge, this gives it to them.' Gentium offers a range of agents

including director agents, which watch computer directories for content changes; extractor agents which extract data from text files; phone agents which manage telephone connections for modern access to remote systems; process agents which manage the process, and bookworm agents which control the replication of data and objects.

Meanwhile, Verity's Topic software agents link the Internet, the internal network and CD-Roms, instantly searching, filtering and delivering personalised information from anywhere in the world, "right



to the user's desktop".

"One of the greatest challenges facing large corporations today is how to deliver information that is scattered throughout the enterprise and the internet to scattered users in a timely, relevant and cost effective way," says Philippe Courtot. Verity's chief executive.

Verity's Topic search engine is already embedded in Lotus Notes Adobe Acrobat and more than 200 other publishing products. On the Internet, Topic has been chosen by Netscape and Quarterdeck among others. For example, Quarterdeck's new WebCompass programme enables PC users to perform searches on multiple World Wide Web search engines such as Yahoo. Lycos, WebCrawler and Digital's AltaVista from a single location organise and index the data for storage on the PC and automatically update databases by performing regular searches.

"By the end of the decade, intelligent agent technology will have come to pervade our interaction with information technology, our desktop working practices, and many of the support services we

which believes the worldwide market for agent software could grow from \$37m in 1994 to \$2.6bn by the end of the decade led by information retrieval. "Intelligent agents promise to provide electronic secretaries which will arrange

your meetings and manage your diary; electronic librarians, which will retrieve the information you want from on-line sources; and a tireless workforce of office and factory staff, which will constantly carry out repetitive tasks with a degree of

"Where the word processor sup ported an electronic typing pool. intelligent agents for the office will ease access to information and services for non-technical users. Agent technology can enrich workflow applications, and provide flexible easily updated process automation."

Fortunately, therefore, just as digital technology threatens to swamp us with information, digital technology may also provide the means to sift, sort and manage data in the information age.

"Intelligent agents will increase the performance gap between organisations which use IT effectively and those which don't," warns

SIEMENS

is a JOURNEY not PESTINATION



## 'The key element is network management'

he appointment late last year of Sir Peter Bon-field as chief executive of British Telecommunications, the world's fifth largest telecoms operator, is a clear indicator of the future direction of the information technology

industries.
Sir Peter, formerly chairman and chief executive of ICL, the UK-based computer company owned by Fujitsu of Japan, has no direct experience of running a telecoms company. BT is four times the size of ICL and still has some way to go in making the change from a bureaucratic, state-owned monopoly to market-driven, competitive organisation.

Bonfield is, however, known for management skills and strategies which have kent ICL. in the black over the past five years while larger rivals have been left floundering in red

He also has an uncommon mastery of the technologies which underpin computing and, increasingly, telecoms: "Big switch technology" he points out "is going to be computer based. Switches will be built up out of standard microprocessors: the software will be disconnected from the hardware and the key element is network management. All of this sounds very much like the computer business."

Bonfield, like, for example, Mr Ron Sommer, head of Europe's largest telecoms operator. Deutsche Telekom, is one of a new breed of telecoms executive whose skills, honed in different but related industries, are now critically important to the telecoms business.



Both have experience of consumer electronics. Mr Sommer Europe. Bonfield worked for Texas Instruments before the move to ICL. And both have experience of running companies in industry where compe tition and technology has forced down profit margins. The telecoms industry, hugely profitable at present, can expect to see margins tighten and profitability shrink by the turn of the century for much the same reasons. The computer industry. Bon-

field points out, has been through a pain barrier, "You are talking to companies who are competitors one day, collaborators the next and partners the next. Until recently, this has not been common in the telephone business."

ven if the technologies are similar, he is not persuaded by the idea of convergence between computer and telecoms companies, pointing to the failure of NCR to thrive within AT&T as an example of the cultural divide

some of the newer areas there may be links, perhaps joint up by combinations of telecoms companies and computer companies," he says. Mr Takuma Yamamoto, president of Fujitsu, warned Bonfield that he might find the move to telecoms "boring". After two months in the business, however. Bonfield is finding plenty to interest him.

between the industries: "In

"It is the combination of several things happening at once. Changes in the laws which regSir Peter Bonfield, chief executive of British Telecommunications and former chairman of ICL, the computer company, has an uncommon mastery of the technologies which underpin both industries. He is interviewed here by Alan Cane

amounts of activity. Companies are getting into markets from which they were previously barred."

There is a lot of activity between players who would not have been easy bedfellows last year or the year before," he says, pointing to the link up between MCI, the second largest US long haul operator and Mr Rupert Murdoch's News International and the deals that a wide variety of customers are striking with Microsoft,

the largest US software house. The other big issue every where is the approach of regulators to how a competitive business should be set up."

A significant difference between the computer business course, is the presence of regulation. Most telecoms companies are still state-owned monopoly operators.

Where they are privatised and the market liberalised, as in the US and UK, regulators are imposed to protect customers from undue price rises and to oversee the emergence of a competitive market.

A regulator can affect profitability markedly. BT has returned about £1bn to its customers in the form of price years through a formula which regulates many of its prices. It is a global problem. Bon-

field points out: "One of the

things we are saying to regula-

town the size of Boston if being

read by Bostonians or the size

of Manchester if being read by

Mancunians.

tal radio.

ulate telecoms, particularly in tors around the world, and not is not simply bound into this the US, are driving huge just in the UK at the moment. small island. We have to make is that the risk-return profile [a measure of an investor's likeli-hood of making a return from an investment] of telecoms national aspirations." companies in the future will be

quite different from the past. "Regulators should not look at them as a utilities offering safe and substantial returns: there are technology risks. market risks, life cycle risks of the products and services. All of this makes the business harder to read, so we need an adequate return on invest-

He accepts that margins are going to be squeezed, and emphasises the need for costsavings: "The emphasis has to be on whether we can grow the market with new services to offset the squeeze on margins. As a first impression, it seems to me easier to do this in telecoms than in computers.

He has in mind the value-added services such as callminder and call-back, based on conventional technology or online services such as BT's "Wireplay", online videogames played over the public network and currently being tested in the UK.

How should the interests of the customers and the shareholders be reconciled in a company such as BT?

"The balance," he says, "lies in how we put our investments together. Our intention is to be a world-class telecoms company and that means a BT that our international activities. We

decisions about what we invest in the network and customer service here against our inter-

"In reality, we are still investing a huge proportion of our available assets in the UK domestic market. We will need to skew that towards the international side over the next few years. That will force us to be much more efficient in utilising the capital that we are put-

> Bonfield's search will be closely watched by competitors

ting into the UK." Bonfield explains that he is seeking innovative ways of expanding the reach and serviceability of the UK network

without the classic way of doing it all ourselves". Bonfield explains that the range of options he is considering includes sharing the risk of developing new products and services with the companies suppliers: "At the

"We don't yet know the answer," he says, "but somewhere there has to be a way to free more resources to develop

BT's nickel."

moment, most of it is still on

do not want to deplete one to fund the other. We've got to do both and be more innovative in how we do tt." Bonfield's search for ways to

strengthen BT's international activities will be watched closely by competitors from both East and West. AT&T, the largest US company, claims to be tackling the UK market seriously: "I do not think anybody here is under any illusions about AT&T's ability to be a good competitor, although it may take it some time to build up customer numbers," Bon-field says.

Deutsche Telecom, France Télécom and Sprint of the US seem to have the green light to challenge BT and MCI's Concert alliance for international customers.

A member of a number of high level committees examin-ing and advising on the future of the industry. Boufield has concerns which go beyond simple competition - "the big question is whether the consumers will really find this technology useful," he says.

"Will it generate this utopia of a future where we will all be more efficient, more perfectly informed and better enter-

"Or will the technology simply cause 'technofear', with ployment and so on. The industry itself has got to tackle that If the technology simply generates hostility, we will not get

#### Middle-sized companies most at risk in digital future Some of the most informed speculation about the future of information Media Lab payroll are comdescribe how it destroyed a

e used to think of information technology as a device that sat on the desk, or fitted into a pocket - today, it is woven into the fabric of our lives," says Nicholas Negroponte, director and co-founder of the Media Lab at the Massachusetts Institute of Technology (MIT).

He believes the increasing digitisation of information - turning video, text and sound into streams of bits that can be sent over global networks - will have far-reaching effects on industries and indi-

Impact on industry

"If an industry can be turned the digital revolution," says Negroponte, author of Being Digital. "If it can't (such as with hamburgers or milk), the transition will be slower."

technology comes from Nicholas Negroponte, the US academic who is also a columnist in the influential US magazine *Wired* and author of Being Digital. Nicholas Negroponte, director of MIT's Media Lab talked to Joia Shillingford at the World Economic Forum in Davos, Switzerland

ingly be replaced by credit card payments and digital cash. "1996 will be the year of digital cash," says Negroponte. The banking industry is in big trouble, he adds, unless bankers can find a way of adding value to the bits. They will have to become partici-

coin or banknote will increas-

show that they can keep your bits (of electronic money) safely for you. Other industries threatened from atoms of matter into bits by the replacement of atoms of information on a computer, with bits include telecoms According to Negroponte: "The transport of bits (over phone

"The people who will make money are the people who For example, the atoms in a make the bits, add value to

them, own them or protect them. Disney, which owns lots of bits (such as digitised video and images), can distribute and

Previously, says Negroponte, publishers have been in the atom business - for example. delivering newspaper pages made up of atoms. But with pants in the digital world and the growth of online publications, they will increasingly be delivering bits.

This will change the economics of publishing and lead to "disintermediation" - or loss of the middle. "The digital world it will be threatened quickly by companies and publishers. gets bigger and smaller at the same time, and the middle falls out," says Negroponte.

"There is little room for middle anything: middle managers or middle-sized companies. Big organisations can offer a

wide variety of content. Medium-sized organisations have little advantage over small ones once the cost of entry for publishing (on the internet, for example) is lowered.

"There will be Rupert Mur-doch at one end and a Moroccan housewife with a couscous file server on the Net at the other, and nothing in between," predicts Negroponte. One casualty of this chang-

ing world will be academic

journals publishing new material accompanied by peer reviews (such as those published by Reed Elsevier). A peer review can take a year and a journal can cost Negroponte

believes "this will be a dead business in the next few years. Faculty won't be publishing that way." He expects this sort of article to be published online instead.

"Publishers will end up being talent scouts," says Professor Negroponte, who is also a founder of, and writer for, Wired magazine. "They will discover authors and publish them. But once the authors are as well known as Douglas Adams or Michael Crichton they won't need a publisher - they'll put their work online

However, putting publications online also creates new ways of presenting information. The Fishwrap project at the Media Lab seeks to make news stories more meaningful depending on the audience. For example, a report on a

disaster (such as Bhopal) could

Impact on

individuals

look at

In other ways, too, Negro-ponte expects the digital revolution to give people more choice. He says: "Now we live a very synchronous existence, with large numbers of people watching the same television programme at 8pm or working "But life will become far

more asynchronous and personalised. People will be able to watch what they want when they want, and work where and when they want." Some people have concerns

about the blurring between work and personal lives that technology makes possible. But



Negroponte believes there is a

the way home. Or your car could log on to the Net and download a weather forecast. The future of IT is buried in

all the other areas of our lives," says Negroponte. This is why MIT's Media Lab takes a multidisciplinary approach to predicting and inventing the

Half the 350 staff on the

puter scientists; the rest are drawn from all walks of life including photography, film-making, architecture (Negroponte's first degree subject at When the Media Lab was

founded in the early 1980s, the idea that video, publishing and computer interactivity would enrich each other seemed far 🦠 fetched to some. But it has been vindicated by growing convergence between the information, entertainment, telecoms and computer industries. Today, the Media Lab is funded to the tune of \$25m by 160 companies in a wild mix of industries; not just IT and tele-

coms, but also toys, clothing and furniture. Sponsorship is drawn 50 per cent from US companies, 25 per cent from Europe and 25 per cent from Japan. Sponsors include IBM. BT, Lego and Reuters.

the Media Lab is involved, most fall into three groups: learning and common sense; perceptual computing: and information and entertain-

is momente

Choose the

Names of the France Sou

They range from computerbased intelligent agents which help pick music you will like (learning and common sense) to front door knobs that recognise you (perceptual computing) to three-dimensional TV (information and entertainment).

In the future, says Negroponte, vou may buy a televipaint it on a wall. Or wear a computer in a sports shoe that is powered by walking and communicates with your wristwatch. When he says IT will be part of the fabric of our lives, he is not always being meta-

■ Profile: Marco De Benedetti - By Michael Dempsey

## Energetic and nimble newcomer

Marco De Benedetti is managing director of Olivetti Telemedia, which exists to exploit the convergence of telecoms and data transmissions.

arco De Benedetti, one of three sons of Olivetti chairman Carlo De Benedetti, manages Olivetti Telemedia. Family succession is not a common feature in the IT industry, but then, the technology world is still a newcomer in terms of

industrial history. The 34-year-old Marco owes his MBA and early experience to more traditional business institutions in the US, including Procter and Gamble and New York investment bank, Wasserstein. This type of background usually produces a distinctive product, but Marco De Benedetti has emerged unscathed from an immersion in formal American business

Sporting brown suede shoes and toying with a mobile phone in a display of impatient energy, he is recognisably

Telemedia is a multimedia Olivetti's Cambridge Laboratories are a hub of Telemedia and telecoms venture that carries responsibility for Carlo De activity: this is where much of Benedetti's grand plan to steer the company's research into the computer-maker away the emerging Asynchronous from the competitive persona Transfer Mode, or ATM, techcomputer market, with its ever-diminishing margins. nology is based. ATM is per-ceived as a crucial delivery Telemedia exists to exploit mechanism in the race to get the convergence of telecoms voice, data and visual images and data transmissions. Teleflowing down telephone lines media was formed in 1994 and and emerging coherently for

has already notched up a string of significant internacommercial and domestic custional deals. Infostrada is a joint venture with Bell Atlantic that has gone on to establish an operation with France Telecom. This will create Italy's second fixed-line phone network, an alternative to Telecom Italia. Hughes Olivetti Telecom will market satellite telecoms services with Hughes Network Systems. Videostrada is a joint venture with US West to develop local cable networks

De Benedetti is based in Milan but visits Cambridge once a week. He is sanguing about what sounds like a hideously complicated acronym -"maybe ATM is not a nice word, but the concept is very simple. It provides a standard for multimedia applications,

This multimedia marketplace has an estimated value of

Continued on page 7



Marco De Beneditti, 34, claims that Telemedia, formed in 1994, will be nimble enough to survive in an unpredictable world

# Fax-U-Back

#### Information Service For details of forthcoming issues of the FT Review of

Information Technology,

UK callers may use the FT-IT Fax-U-Back Service. Details include editorial synopses of future issues and writers for various

themes. The fax number

0990 209 903

For callers outside the UK, the fax number is 44 990 209 903

Technical note: if you have a handset on your fax machine, dial the Fax-U-Back number and press 'start' when instructed. Alternatively, the number can be dialled direct from the fax keyboard, followed.by

'start'. If callers have technical problems regarding this service, telephone 0171 873 4378. Callers from outside the UK should dial:

+44 171 873 4378



FT Review of Information Technology

Production editors: Michael Wiltshire and Philip Sanders Writers in this issue (volume two, number two) include: Paul Taylor, IT Correspondent; Louise Kehoe. Stephen McGookin, Claire Gooding, Philip Manchester, Michael Dempsey, Rod Newlng, John Kavanagh, Geoffrey Wheelwright George Black, Nusla Moran, Tom Foremski, Joia Shillingford, Alison Smith, Michael Wiltshire, Marcia MacLeod.

flustrations: Mark Thomas (cover picture) and John Springs Graphics: Robert Hutchison and Steve Bernard Picture research: Patricia Lee and Mathew Glynn Statistical research: Keith Fray

The next issue, April 3 issue, will include the following themes:

Focus on Desktop Computing IT Directions: Video and tele - conferencing. Software at work: statistical analysis and modelling packages in

The May 1 issue will include: Focus on mobile computing IT Directions: Computer - telephony integration, CTI. Software at work: voice recognition and translation.

Simon Larter, FT Advertising Department: telephone (+44) 0171 873 4129 or fax: (+44) 0171 873 3062

For advertising details contact:

Number One. Southwark Bridge.

Financial Times.

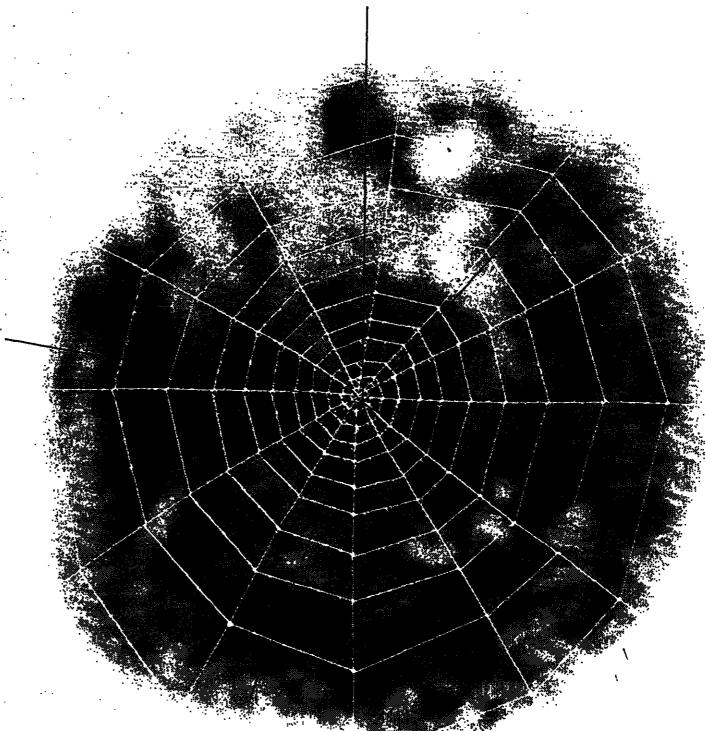
London SE1 9HL

in the US: New York Gavin Bishop, telephone (212) 745 1342 San Francisco: Nick Mayle, tel. (415) 637 9775

A weather report for Alaskans could describe 55°F as a "warm 55 degrees," whereas one for people living in Florida would describe it as a "cool 55 Television is also set to change. As digital television channels become available. TV will become a form of data broadcast, which broadcasts digital video on some channels. some of the time but at other times broadcasts data or digi-"TV broadcasters have to get into the data broadcast business," says Negroponte. He interactive. Instead of a few cameras trained on a football match, you could have cameras capturing every point of view, so that viewers could decide what they wanted to

trade-off. "I'd rather answer e-mail on a Sunday and be in my pyjamas longer on Monday," he writes in Being Digital. In the longer term, what he calls "things that think" could enhance everyday life. For example, the fridge could send a message to your car reminding you to get some milk on

EDNOOD LY MARCHER



# The Journey ahead

is momentous, remarkable and full of hazards. Choose the most careful and experienced guide.

The Worldwide Web of today's Internet offers a tantalising foretaste of even greater wonders to come. Soon, the ability to access and exchange any combination of text, data, voice messages, sounds and moving images instantly will be commonplace. But while a net can be a great gatherer of riches of all kinds, can it not also be a snare for the unwary?

At NEC we have no such fears. Our Multimedia Office System is already demonstrating the future: mobile

computing seamlessly combined with multimedia on demand and multimedia collaboration is now a reality. It's the result of over 20 years experience in integrating computer and communications technologies. In fact, thanks to our long-term investment in research and development, we are unique in having expertise in every aspect of multimedia. So when you're looking for a guide through this new world, remember NEC has shaped every step of its evolution.

For further information, please contact:

NEC Corporation. Overseas Advertising Division, 7-1, Shiba,
5-chome, Minato-ku, Tokyo 108-01, Japan. Fax 81-3-3798-6333.

NEC Europe Ltd, NEC House, 1 Victoria Road,
London W3 6UL, UK. Fax 44-181-235-4942.

the multimedia @volution

\*\*\* INEC

Miverging techno.

Digital

systems

reshape

working

following 12

examine the

impact of the

integration of

computer and

technologies

telephone

Here and on the

pages, FT writers

world

the

### ■ The advance of digital technologies - By Paul Taylor

## Raw power of the **Information Age**

The steady advance of digital electronic systems, based on the 'ones and zeros' of binary computer language, is sweeping away the remaining distinctions between data processing and telephony, leading to the dawn of a new information age, epitomised by the growth of the Internet

igital technology has made it possible to convert words, sounds, pictures and moving images into coded digital messages which can be combined, stored, manipulated and transmitted quickly, efficiently, and in large volumes without loss of

As a result, electronic commerce and the multimedia revolution are driving the computing and telecoms worlds into ever-closer contact, forcing two industries with traditionally

to compete and co-operate. The relentless advance of semiconductor technology, the emergence of a personal computing standard and the shift to distributed computing and inter-networking are providing the raw power for the 'informatisation and liberalisation is reshaping the competitive environment for telecommunications services around the globe. In response to the intensified competition and reduced margins on basic telephone services in liberalised telecom markets, network operators are building new computerdriven intelligent networks in order to offer a wide range of value-added services.

Similarly, the growth of interest in mobile telephony reflects the impact of liberalisof the larger world telecom markets including those in Europe where the arrival of digital cellular networks based on the GSM (Global System for Mobiles) standard has prompted a surge of subscribers in markets such as Germany, Britain and France. Within the next few years,

voice and data systems based on the latest low-earth orbit satellite technology, such as the Iridium system, hold out the prospect of truly global mobile telephony. Such systems may well be paired with in-office digital cordless systems to provide the ultimate in cordless connectivity.

Outside the office, high speed modems, ISDN digital elephone lines and the unprecedented growth of the home computing over the past two years has helped begin to turn teleworking into a real possibility for a growing segment of the workforce. Other technologies such as

cable modems, hybrid fibre/coaxial systems and ADSL which uses traditional twisted-pair telephone wires, offer the prospect of almost unlimited bandwidth to the home. These tech nologies foreshadow a looming battle between rival cable TV and telephone network operators over which systems will deliver video-on-demand, video games, home-shopping and banking and other interactive consumer services to the

Already, there has been a rapid increase in digital transmissions using coaxial and fibre-optic cables, wireless systems and satellites. "These advances in digital storage and transmission will deepen the convergence of industry sectors that, until recently, were considered quite distinct communications, entertainment, computer hardware and software, consumer electronics and informational content, says Microsoft, the US software group, in a white paper called Creating the Global Informa-

and institutions to create, purchase or sell and use a new generation of abundant electronic content - the heart of the new information society," predicts Microsoft Digital technologies are

already enabling companies and other organisations to improve productivity, accelerate product cycles and compete more effectively in the global markets of the 1990s. Reflecting this, corporate

spending on IT, particularly lecommunications, continues to grow rapidly. For example, a survey conducted in Britain among 1,000 IT executives in leading UK businesses, by Price Waterhouse, the accountancy firm, found that the average IT budget rose by nine

Spending on telecoms soared 45 per cent in the year to last April. As a result, telecoms now account for 8 per cent of total IT spending, up from 6 per cent a year earlier. "The sharp increase reflects the growth in computer networking and in the integration of telephone and computer technology, which is transforming

their customers," says Price Waterhouse in its annual IT Review, However, the report's authors note that "integrating IT and business objectives remains the number one management issue as concern with cost-control diminishes."

n Britain, the ratio of spending on mainframe computers to PCs is now 51:49 among UK businesses, compared to 60:40 a year earlier. As Mr Ekhard Pfeiffer. president and chief executive of Compaq Computer, the world's largest PC manufacturer, notes, "the pace of change in the computer industry is dramatic"

Today, the PC can be used as a telephone, a fax, an answering machine and television, a node of the office network or a gateway to commercial online information services and the Internet. In business, the PC offers an available, highly affordable, and scaleable tool.

For many traditional computer manufacturers, such as IBM, Digital Equipment, Unisys and others, the changes which have swept across the

industry over the past 10 years have resulted in a painful period of transition. With hardware margins

under constant pressure, some - including Unisys and ICL in the UK - have decided to refocus their operations and have moved aggressively into the IT consulting, systems integration and computer services business which also includes the rapidly growing market for IT outsourcing. The shift of focus to desktop

PCs has thrown up a new group of computer industry leaders. These include intel, the US chipmaker whose microprocessors power the vast majority of the world's PCs, and Microsoft which has come to dominate most segments of the software market with its Windows and NT operating systems and its Office and Back Office suites helped by a recent marked shift

towards packaged software. Last year, more than 60m PCs were sold, buoyed by particularly strong shipments of are growing twice as fast as their commercial counterparts. This surge of PC computing

perating the stage for a battle between the PC and the TV to determine which will emerge as the dominant multimedia and interactive entertainment plat-

For people such as Mr Pfeif-fer, there is no contest. Compaq, which already dominates the market for commercial applications server, is predicting not only multiple PCs in the home, wired together with a home server, but also "a proliferation of computing platforms for communication, information access and enter-

tainment." Looking towards the end of the decade, Mr Pfeiffer says: "We see a world not just of hasic connectivity as we have today, but also wide area information access and collaborative computing drawing on today's tools like Lotus Notes as well as new Internet tools under development.

"In short, we see a world in which everyone in a company will have access to and work from the same, totally refreshed data that represents what is happening in the world



Converging technologies - electronic commerce

■ Electronic commerce - By Paul Taylor

## Fresh opportunities in a vibrant marketplace

Any network used for electronic commerce has to address security

he recent rapid growth of the Internet and internetworking has focused attention of the new opportunities for electronic commerce, not only as a means to cut costs and improve efficiency. but also as a way to tap into a new and vibrant emerging

"Electronic commerce. already developing in fledgling form on the Internet, opens up a range of new possibilities. It extends the reach of small businesses by enabling them to sell into markets they may never have dreamt of entering by conventional means," says a discussion paper prepared by Barclays Bank. "Plus, it may offer them the prospect of buying products and services from new suppliers in other parts of the world that they would not approaching.

Broadly, electronic commerce enables consumers to use a variety of on-line terminals and public or private electronic communications networks such as the Internet, to purchase goods and services from the comfort of their own homes or wherever they happen to be. Although electronic commerce is in its infancy, some forecasters predict that it will account for as much as \$200bn in expenditure by the end of the decade.

Electronic commerce requires three components: an online terminal, a payment mechanism and a public or private communication network to make purchases. Crucially, argues Victor Millar, president and chief executive of AT&T Solutions, electronic commerce requires "building a secure and stable system." This factor, he believes, could give telecoms groups - which have historically had to deal with these issues - an advantage over their upstart computer rivals.

Any network used for electropic commerce has to address key security issues to ensure confidentiality and authenticity and win the confi-

two main approaches to this using encryption techniques to secure existing payment methods or the use of electronic cash such as Digicash, Cybercash and Mondex initia-

According to Kelly Knutson, senior vice-president of Visa International, any electronic commerce system will have to satisfy four basic security concerns; privacy of the data, integrity of the data, authentication of both the buyer and the seller and making sure that the order is received and processed and verification is sent back to the buyer.

At the start of last month, Visa and its arch rival, Master-



Victor Millar: crucially, electronic

Card International, agreed to work together on a technical standard to safeguard payment card purchases made over open networks such as the Internet. Refore this the two credit cards had been pursuing separate specifications.

Even ahead of this, the race to set up shop in cyberspace is on. Massachusetts-based Open Market, an Internet commerce provider, listed just 588 comindex at the end of September 1994. By the start of September last year, that number had jumped to almost 12,000.

According to a recently published NOP Research Group survey on commercial use of the Internet, more than 150,000 people in Britain have already used the Internet to purchase products and services in the

is still very much in its early stages as a commercial tool." said Rob Lawson of NOP. "but our research suggests that the volume of those willing to consider a purchase in the next six months is almost three times those purchasing in the last six The Barclays paper says:

"Electronic commerce has the potential to challenge the business model - the relationship between banks and customers Banks will need to study the underlying value chain - how and when value is created and delivered to the customer - to identify their strengths and weaknesses in this new scenario. As the balance in delivery channels changes between branch networks and electronic networks, so the control of the delivery channel gradu-ally passes from the financial services providers into the hands of third parties. At the same time, the barrier to entry for new competitors - the need

Already the Internet has its first network-only bank. Security First Network Bank opened its virtual banking doors for business in mid-Octoher Forrester Research heralded SFNB's debut as another Web wake-up call for the financial services industry." As Forrester points out, a bank's physical scale means

work – disappears.

little in a virtual world. Similarly, SRI International, another research firm notes: "the potential of the Internet for Commerce is more farreaching than the vision of traditional electronic data interchange (EDI). Although speedier transactions and decreased paperwork are certainly part of this vision, conducting business on the Internet is ultimately motivated by a more fundamental concern - bringing the operations of a busi-

ness closer to the customer. "The Internet can serve a critical role in allowing companies to establish and maintain relationships with their clients. which in turn allows them to become more responsive to clients and to promote sales of additional products and ser-

'If you can't beat the Net, join it Commercial online to scrap plans for proprietary information

services have suffered a high-speed, head-on collision with the Internet ust a year ago, it was possi

ble to draw clear distinctions between the Internet an unregulated, chaotic but exciting new world of and the more structured environment of consumer-oriented online information services.

Today, with online services ch as CompuServe, America Online and Prodigy all offering Internet access capabilities such distinctions are no longer clear. The picture if further muddled by the fast growth of national and local Internet access services and the development of branded Internet communities".

Convergence is hardly the best word to describe this rapid industry transformation. Commercial online information services bave suffered high-speed, head-on collision with the Internet.

The fallout is most clearly demonstrated by Microsoft's decision to redefine the Microsoft Network (MSN), introduced last August as a new online service, as an Internet based service and subsequently software designed to create multimedia electronic publica-

Prior to the launch of MSN, established online information companies feared that Microoly in the market for personal computer operating system software to gain an unfair competitive advantage in the online information services

Industry analysts predicted that MSN would quickly become the world's largest consumer-oriented online service. The US Justice Department entered the fray by investigating the potential anti-trust implications of Microsoft's

Yet such concerns quickly evaporated as MSN failed to live up to analysts' expectations. In December, Microsoft announced that it had changed its plans for MSN and would. in future, direct its efforts at creating products and services built on Internet standards.

Bill Gates, Microsoft chairman and chief executive. acknowledged that his company had been slow to respond to the rapidly growing popularity of the internet and vowed to put Microsoft in the forefront of the market for Internet

Established online information services have also been forced to adapt. Prodigy, a joint venture of Sears Roebuck

and International Business Machines, moved quickly to add an Internet "Web browser" to its services. Compuserve

and AOL quickly followed suit. But the blending of Internet and proprietary online services not stop there. Prodigy has embraced Internet software standards and is redefining itself as an Internet-based service. This "if you can't beat the Net. join it" strategy is similar to Microsoft's new approach.

America Online is hedging its bets. As the largest commercial online service with more than 5m subscribers. AOL is not ready to succumb to the Internet frenzy. While it offers subscribers a link to the Internet with a high-speed Web browser. AOL remains a distinct entity.

The company has, however, established a new subsidiary through the acquisition of Global Network Navigator, a pioneer of Internet-based information services. GNN combines its own content and that of publishing "partners" with services aimed at making the entire internet easier to use.

GNN is "pitched to mass market America", says Lisa Gansky, vice president of marketing, "We aim to give users a powerful experience of the Internet in their first hou online

In the first three months after its launch, last autumn,

100,000 subscribers; its Internet advertising "space", however, site is being visited by half a million people a month. Compuserve has taken a sim-

ilar "market segmentation" tack. In addition to its flagship online information services, Internet access service called Sprynet with unlimited time on the Internet for a fixed monthly fee

This month CompuServe will also launch a new service ~ called Wow! - aimed at the first-time online user who might be intimidated by the scope and power or the Inter-

#### Competition

Making use of its established network, Compuserve is offering local access throughout the US and in many other parts of the world. This puts it in headto-head competition with US national Internet access providers such as Netcom and PSI. as well as local access provid-

As commercial online services begin to compete with Internet access providers, one of the critical issues is advertising revenues. While online advertising is a relatively new non, it is growing rap-

Please send me further information on the

Sportster Vi 28,800 Fax modern with Personal

For online services, advertising represents an alternative source of revenue to offset the effects of intense price compe-

strate their abilities to maintain the interest of subscribers in their own information services, rather than being simply a route to the Internet.

ket, new developments include the use of "content sensitive" advertising in which online commercials are tailored to the interests of individual users by tracking the Internet sites that they visit. Online services that can deliver large numbers of users to specific Internet services, such as Internet directories, might also win a share in advertising revenues generated

As the commercialisation of the internet moves anace with the introduction of fees for access to electronic publications, online services also see an opportunity to become the managers of the "toll booths" on the information highway, providing subscribers with free" access for a set monthly

The outcome of this maria battle has yet to be seen." It appears, however, that market ing savvy and the ability to create high quality electronic publications may win the day. In this regard, the world of online information services is remarkably similar to traditional publishing media.

New services target home



The Sportster Vi 28.8 Faxmodem with Personal Voice Mail provides the fastest connection to the Internet and puts all the convenience of an answering machine, a fax machine and a Sportster modem in one compact unit.

### Plus Free Internet Special Starter Kit

- free Internet Trial via PIPEX Dial Trial Software.
- free Serial Cable and Converter ...
- free CompuServe Trial Offer
- free Dual Telephone Adapter
- ACC Long Distance Low Cost Call Service

U.S. Robotics Limited 650 Wharfdale Road, Winnersh, Wokingham, Berkshire RG41 STP FREEPHONE 0800 22 52 52

FIDA F SIDAY SACHER

ronic comme

## Lure of unpredictable treasures

Lucrative potential for mass expansion Unipalm Pipex are successful is thought to lie in the mainstream commercial

services aimed at home users

hen considering the phenomenal recent growth in the market for online services, we have to distinguish between Internet access providers, of which there are now a couple of hundred in the UK alone; businessrelated information services, and the commercial proprietary networks which offer a range of content, such as Compuserve or America Online. The access providers - of

examples - have concentrated on low-cost connections for people keen to get straight to the Internet, while "the battle for desktop real estate", as Michael Bloomberg once put it, means that success in the highly-competitive, premium-priced business sector is measured in timeliness and volume of research intelligence.

There are a growing number services - PhoneLink's Tel-Me service, for example, which offers a wide range of travel and directory information - serving the personal and small business user. But it is the third grouping, the mainstream commercial services aimed at home users, where lucrative potential for mass expansion is thought to lie. The US Market research firm

which Demon Internet and Simba Information last year

predicted that the number of subscribers to consumer-based online services would increase by about 66 per cent to more than 11m worldwide in 1995 - with that number more than doubling by 2000.

CompuServe was the first commercial online service to make a significant breakthrough in Europe, its huge range of diverse, premium-rate subject forums initially overwhelming many first-time users, but nevertheless whetting their appetites for more iginative services.

CompuServe currently boasts upwards of 3.5m members worldwide and says it is adding about 150,000 users each month. It has about 400,000 users in Europe, concentrated in the UK. France and Germany, and about 160,000 in Japan through an alliance with NiftyServe.

America Online - unrelated to either UK Online or Europe Online - is probably the world's fastest-growing online service, with 7m users worldwide. It launched in the UK at the beginning of this year and in France this month in collaboration with German media company, Bertelsmann. It launched in Germany before Christmas, with regional con-

service available. Like Compu-Serve, access to the World Wide Web is integrated within

Prodigy is the smallest of the three leading US online networks, with about 2m subscribers. While content providers such as the Los Angeles Times may have forsaken it in favour of the Web, it says it has added since April, which it may open to non-Prodigy users if it can work out a charging arrange-

The swiftly growing America Online service now has 7m users

The Microsoft Network is the manifestation of the world's largest software company's ambitions for a global online service. It is available in 52 countries worldwide. Having ridden early industry and regulatory worries about its potential market domination due to it being launched along with the new Windows 95 upgrade

software, it limited itself to an initial 500,000 subscribers. Delphi, launched in 1981, was

bought by Rupert Murdoch's News Corporation in 1994 and has about 140,000 subscribers worldwide. It is providing content including a link to The Times through its Web site (www.delphi.co.uk).
Apple's eworld, which comes

packaged with Macintosh computers and was launched in Britain and the US in 1994, has about 90,000 subscribers. Europe Online launched at

Christmas with individual services for subscribers in France, Germany, Britain and Luxembourg, with regionally tailored content which restricts Web access to explicit sites. It is unlikely you will find anything like the "Live Nude

Videoconferencing" - recently being touted on various Internet newsgroups - by dialling up UK Online, which was launched in September last year and has specifically targeted family subscribers.

It claims that its research indicated that 64 per cent of UK families would prefer British-based content over a USoriented service, and all of its subscribers are from the UK. A family membership costs £14.99 and provides four individual

for 'fist-pack' furniture. The images are created by the visual comput the company, Silicon Graphics, DIY

e-mail addresses and unlimited use of the service facilities.

Again, UK Online's research told it that 93 per cent of its adult users would prefer to have parental control over what children might have access to. It offers a commitment that the content it supplies will meet its "strict editorial criteria to ensure its suitability for a family audience," while its system of parental control allows parents to specify what content children have access to and also how much time they can spend

With content-providers considering their options between Web and partnership deals with proprietary services, the commercial online companies may have realised that their

future is inextricably tied up with the free-access culture of the broader Internet.

But with estimates of the online industry's revenue pie usually including the word "billion", they trust the market will continue to grow for their value-added services in partnership with the varied, yet unpredictable, treasures of the

## Network security Operating under a cloud of uncertainty

Companies face a complex web of technical, legal and moral questions

he IT security threat has long been depicted in terms of wild-eyed hackers hunched over terminals late into the night. But while there is real cause for concern about criminal activity over computer networks, large corporations are very worried about another threat to their use of electronic communica-

Meanwhile, government restrictions on the use of data encryption codes in various countries are limiting the ability of commercial organisations to protect themselves.

Cryptography is at the heart of this dilemma. Governments all over the world rely on specialist intelligence units to break down data transmissions from other nations and individuals while encrypting their

The US National Security Agency and the UK's Govern-ment Communications HQ are the best-known of these agen-

The NSA is notorious for obsessive secrecy. Meanwhile, in the UK, the GCHQ has lifted its traditional reticence in recent years to offer advice to British companies concerned with data security.

Mr Roger James, chairman of Cheshire-based communications software specialist Bol-don James, has worked with GCHQ to define data standards for UK government departments. Mr James plays down the cloak-and-dagger imagine of GCHQ, but instead he describes his contact with its staff as "horribly technical". He also portrays the Chelten-ham code-breakers as "very down-to-earth people".

There are two ways of ooking at security, he says one is the practical approach, which means accepting that periect security is impossible to obtain. The other is the Ivory Tower approach, which involves dreaming of a world in which security is absolute. There are a lot of 'practicalists'

in GCHQ".
Mr James, whose clients include the Britannia Building Society and the German Navy, is active in the European Electronic Messaging Association. He is concerned at the lack of a co-ordinated European policy on encryption. And he fears that effective security measures could become illegal with the advent of future legislation curbing the availability of encryption software.

t is illegal at the moment to use strong cryptography L techniques in France without first depositing the key to unlocking your codes with the French government. UK companies developing sophisticated security programs find their software classified as munitions and subject to tight export restrictions, even within the EC.

in the US, the author of strong encryption program, called Pretty Good Privacy', found himself facing a Grand Jury and possible charges of exporting prohibited technology. The NSA has proposed that all personal computers made in the US contain the Clipper Chip. This security feature would give the NSA easy

access to any data communications, however the user chose to encode it. The proposal is currently stalled, having met with ferocious opposition.

Both suppliers of information technology and industry at large need to clear a path through this international maze. The legal structure surrounding the use of encryption technology is of particular concern to anyone working in electronic commerce.

"The Clipper Chip debate raised a fundamental moral issue," says Mr James. "Software technology means that strong encryption, previously available only to the military, public. If governments then find messages hard to break, it leads immediately to a conflict

ne company that has confronted this apparent conflict of interest between state and commerce, is the Anglo-Dutch oil giant, Shell. Mr Nick Mansfield, a Shell technical consultant specialising in information security, says the company is enthusiastic about the potential for eliminating paperwork across its sprawling global operations - "we are committed to electronic trading," he says. "We have a vast electronic-mail network. But there is still a section of our business where we have to use paper".

Contract agreements are at issue here. Until security can be absolutely guaranteed, bilateral agreements must be seen to be tamper-proofed. Shell is about to deploy technology to secure personal computers and PC servers across the world. This e-mail security system will cost around film in software purchasing plus £100,000 a year to run. It will have 4,000

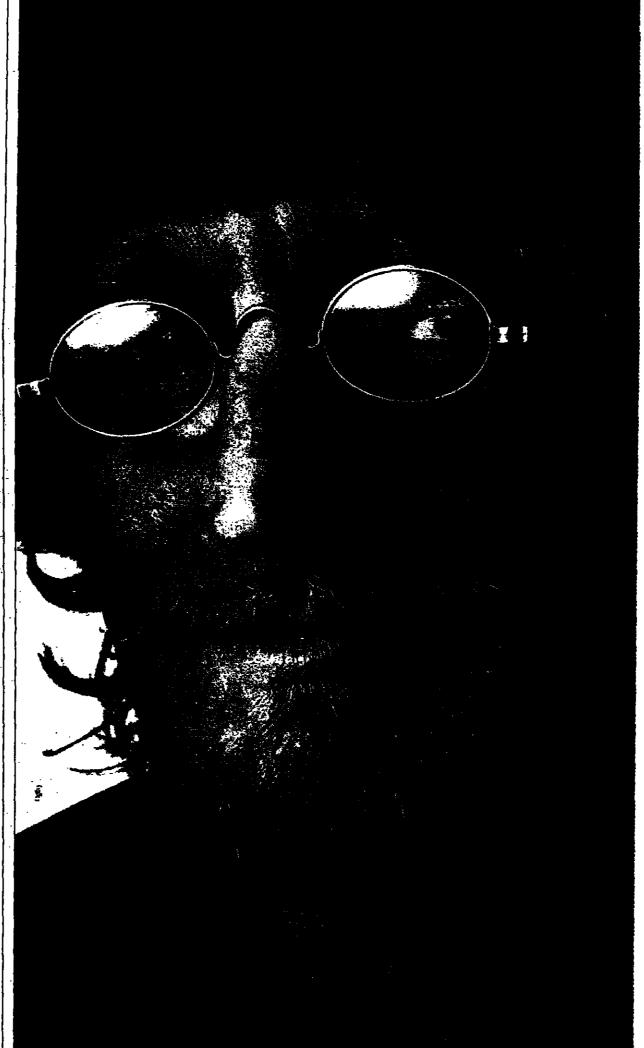
Far from escalating costs, Mr Mansfield explains that expenses are falling as security improves. Shell used to run a secure telex network that cost £4m in technology and required 2200,000 a year to support 120 sites. This was superseded by a secure fax network costing firm in systems, plus 2100,000 in annual maintenance for 200 sites. The latest system will expand secure aging beyond the fax network's remit.

But setting up this security system involved Shell in a long and involved process. Its chosen security software is subject to close scrutiny by the UK authorities, who worked with Shell to customise the program before it could be released for

While Mr Mansfield is pleased that Shell's security system is so strong, it required an export licence and he echoes the concerns of EEMA's Mr James - "it's a cart and horse situation. Until governments agree on policy and relax some restrictions, industry won't be encouraged to development extreme standards of encryp-

There needs to be a broad European debate on this issue. Until this complex web of technical, legal and moral questions are resolved, secure commercial data networks will be operating under a cloud of

Michael Dempsey

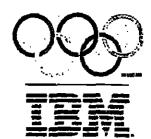


"I'm going to CeBIT'96 to see how IBM helps to plan, manage and run the Olympic Games. Not that I really need a good reason to leave Siberia in March."

No matter where you come from, there's one place you should visit at CeBIT 96: The IBM stand.

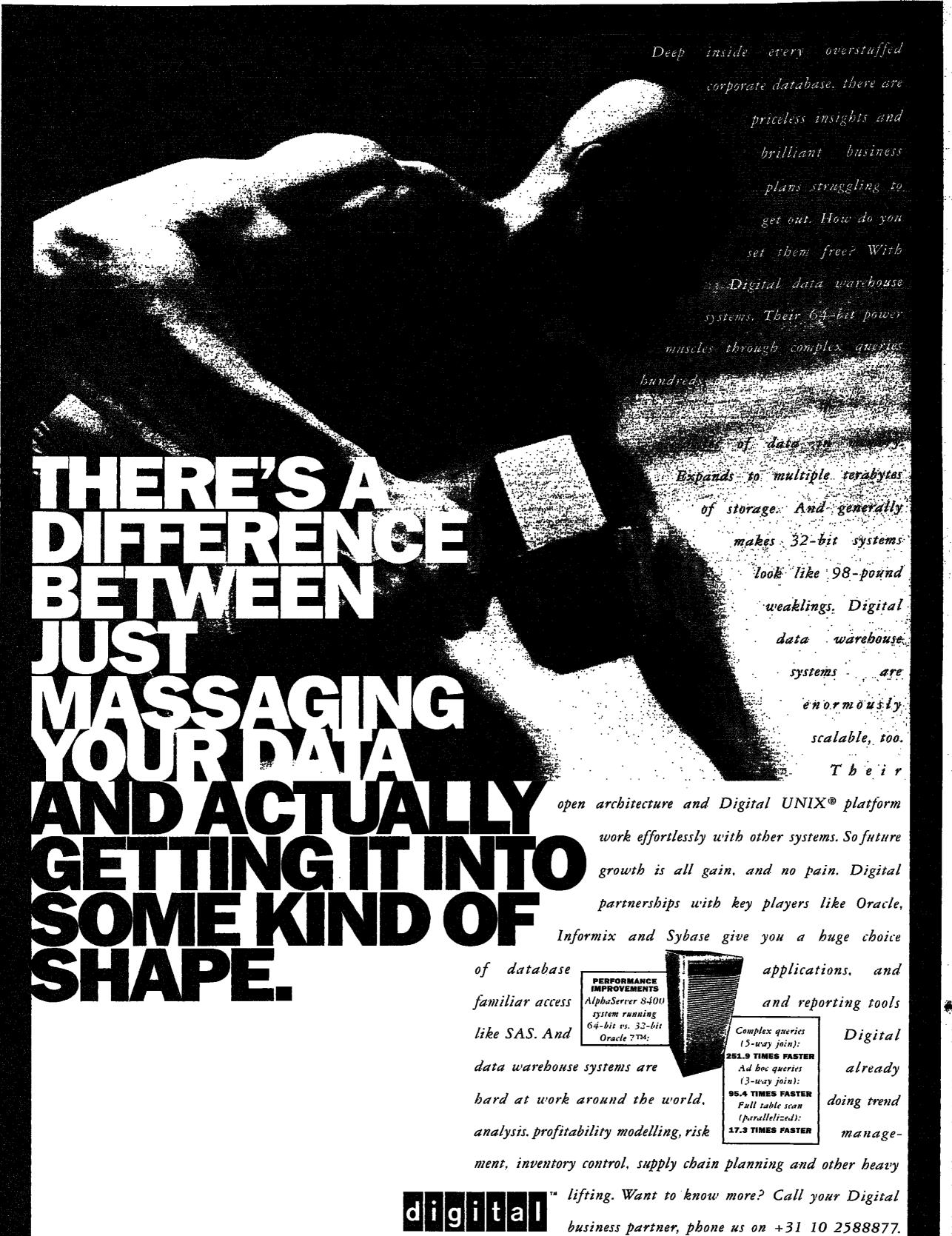
There, you'll find a wide range of innovative products and solutions, from our pen-based ThinkPads to advanced multimedia. You'll also discover the power of Network Centric Computing. And you'll see how the technology IBM developed to plan, manage and run the Olympic Games can help you plan, manage and run your business.

It's an excellent reason to leave the house. To find out more, visit our web site: http://www.ibm.de



**Worldwide** Information Technology Sponsor





or fax us at +31 10 2588878. You can also send an e-mail

to moreinfo@digital.com or see us at http://www.digital.com.

dimedia pa

## Case study: converging services

## Host to the London Internet Exchange

When computers and communications are brought together in the same location, all sorts of synergies are created. Rod Newing reviews what happened in the London Telehouse

he London Telehouse deep fibre optic cable links to was built in Docklands three years ago to provide a highly secure environment for city mainframe computers, as well as providing disaster recovery and business continuity services. This impressive building - within two miles of Canary Wharf has been designed to provide the highest possible level of protection against flood, fire, bombs and sabotage.

MEXINA MARCHARA

iversinffed

Mentar

15 46 175

Beneroll-

N. 148 A.

Pasta de la Alba

1404.15

7/14 BUNG

100

Power and communications facilities are just as important as physical security and the London Telehouse has multiple back-up systems. There are two separate high voltage links to the National Grid, two generators and a battery room.

There are telephone links at each end of the building, feeding through separate lines to six BT exchanges and four Mercury ones. Each line is backed up by several other lines and there are duplicated er with a secure physical envi-

clients in the City of London. There is also a "teleport" equipped with microwave and satellite wireless data links.

Despite Telehouse having a target market of city institutions, one of the early tenants to move equipment into the building was Unipalm Pipex, Europe's largest internet service provider. They established a point of presence, using a link to Telehouse America, a similar secure building, to offer Internet access to the US.

"As an Internet provider. you need to put servers and equipment as close to communications facilities as possible," says Keith Mitchell, Pipex International's head of engineering. "In the US we can put our equipment into telephone exchanges, but that solution is not available in the UK. Telehouse offered us the necessary communications links, togeth-

ronment for the equipment." As internet usage exploded, Pipex was soon joined in the Telehouse by more international telecom carriers, as well as other Internet providers. It is here that Pipex locate their WorldServer, a powerful Sun server which is one of the largest Internet servers in Europe.

"In order to provide a resilient site for computers, you need first class communications links," explains Telehouse Director Kevin Still. "The Internet providers depend on international carriers and were attracted to Telebouse by the presence of BT, Mercury and Sprint. As the Internet use expanded, more carriers were attracted to the building because of the Internet providers. This created a virtuous circle of carriers and Internet providers attracting each other."

There are now 15 international carriers in Telehouse, including all five domestic carriers. So far, 17 Internet providers have become tenants. including all five "backbone" companies. Telehouse now carries 85 per cent of Internet traffic between Europe and the US. "We are ready and willing

for all traffic to come through

building design is ideal for this service. We want to locate all Internet providers and carriers in the same building to create an important gateway into Europe and the US. It will also provide a competitive empo-

here," says Mr Still. "The vices where they and our other between the 17 different Intertenants can also feed off each

An interesting opportunity provided by the Telehouse was the creation of a UK interconnect point the London internet Exchange (Linx). It is a broadband fibre local area network



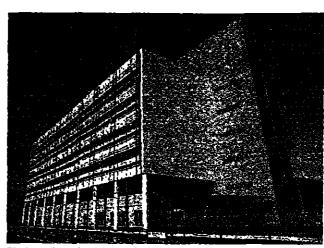
Bomb damage in the City of London: financial institu aware of the need for secure IT back-up facilities

net providers within the secure physical environment of the building, allowing then to share their capacity.

"This is a major service to the Internet user-community, but it is only possible because their servers and equipment are located in a common neutral environment where they are treated equally," says Mr Still. Although they are a shareholder in the building, BT are treated at arm's length by the building managers.

The presence of all these carriers and Internet providers brings the other tenants of Telehouse a big benefit: they have a wide choice of international point-to-point and Internet suppliers with whom they can connect. Most importantly, they can make their connections through a local cable in a protected duct within the building, rather than in the street where it is vulnerable to

damage.
"Telehouse promotes competition by giving good connectivity between different computer networks," says Mr Mitchell. "Unfortunately, it's unique in Europe and we need more such facilities.



Blast proof: Telehouse (above) is a unique computing and telecom ing with state-of-the-art protection. The Telehouse FM service



Banking applications - By Alison Smith

## Still a long way to go

Banks seem more interested in evolution than in revolutionary developments

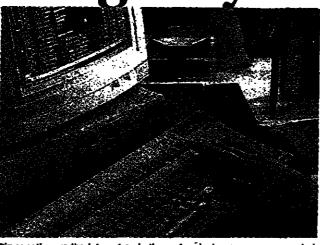
with millions of customers who instructions some technophobes. and systems that they cannot afford to go wrong, it is scarcely surprising that many banks are not at the cutting edge of information technology - although the financial world has long been one of the largest investors in automa-

The banks recognise the made, both in banks' internal bank to carry out the transaction? vide services to customers. They also acknowledge that further developments will bring about even more signifi-

cant changes. It will mean both challenges and opportunities. So far as one financial technology expert is concerned, one important element is that the demand to provide services around the clock will put increasing pressure on some UK banks' main computer systems, requiring their upgrading.

"TSB already has a real-time system, but Barclays still has a batch processing system," he says. "Banks with batch processing which are offering 24hour services and allowing customers to use them by personal computers and smart card technology, will have to rethink their systems."

Mr John Sturgeon, business development manager for customer banking at ICL Financial, sees a more fundamental issue facing the banks over the next few years. As the Internet, and other networks, become more accepted as ways of transacting business, then the question arises whether



Big question: as the internet and other networks become more accepted transformation IT has already as ways of transacting business, will the parties involved still need a

bank to carry out the transaction.

"Transactions could go across the Internet from customer to supplier, with the bank just acting as custodian and not doing the transaction itself. The traditional role of banks could disappear."

He believes that the availability of hundreds of television channels within a few years could also pose a threat to the banks.

Using these TV channels should lower the costs of entry to the personal financial services market, making it easier for non-banking organisations to offer financial products, perhaps creaming off the extra higher-earning services without feeling obliged to offer the basic money transmission facilities provided by the high street banks.

For the main UK banks, however, the accent is much more strongly on the opportunities that technological developments can provide, both in their own internal processes and in terms of what they can

While much restructuring of the parties involved need a banking processes has already taken place, some changes are

still in progress. UK clearing banks, for example, are in the process of shifting to a new system in which the details of cheques can be read and transmitted electronically, and the cheques themselves do not have to be presented at the bank branch on which they are drawn. Most other European countries have already adopted this approach.

Mr David Guest, manager of electronic commerce at Midland Bank, believes that the widespread use of document image-processing could be the next important change for banks. "At the moment we're still shuffling immense amounts of paper. The cost of image processing is only now becoming affordable, but there is great potential for speeding up processes and access if every document is scanned on arrival in a branch or office," he says. "We could make fan-

tastic savings." Mr Gordon Pell, general manager of retail operations at the Lloyds TSB Group, says see Page 10

that the electronic transfer of information - "the electrification of the back office" - will contribute to the widely-expected shakeout in the banking sector, as thousands of lowskilled jobs disappear.

Mr Steven de Looze, a senior executive ip new delivery channels at National Westminster Bank, believes that technological developments could transform the delivery of products and services.

Alongside the commonly-held view that increasing use of the telephone and the prospect of providing services through customers' televisions and personal computers, he sees a role for the banks in providing information services to business customers, perhaps for smaller businesses.

"I think there is a large market in providing or broking business-to-business services,' he says. "There are already a number of service providers. but there is no reason why banks should not act betwee information providers and husinesses."

The focus within the banks for changes in delivering services to customers is not so much on ground-breaking ideas, as on developments that allow services to be provided more cheaply or more accessibly. Despite the advice from some technology managers that IT developments will revolutionise the banking sector, hanks themselves sound more interested in evolution.

"Although some things will happen very fast, in general, banks have to have a lot of trust that when they do things electronically, they do it well. That requirement will slow down the pace of change," says Mr Guest

Developments in home banking and multimedia in finance:

### Vith more than 200,000 objects on display relating to science, technology and medicine, the Science Museum in

Science Museum goes online

London attracts more than 1.4m visitors a year. But now, with 500 Web pages set up on its Web Server, the museum has the potential to attract millions of Internet "browsers" to access its vast educational resources. Net browsers around the

world can call up information ranging from the history of flight to conferences on issues surrounding genetic screening. International users are now downloading 60,000 files a

The museum is really one of three, which together with the National Railway Museum in York and the Museum of Photography, Film and Television in Bradford, make up the National Museum of and Industry. Each venue is computer-linked via an open systems network, installed by Data General, the hardware company largely responsible for the Science Museum's developments in cyberspace.

### Wide choice

Alistair McLaurin, the museum's IT manager, says more than 40,000 "virtual visitors" logged on to the museum's server in the early months of this year. A trip to the "virtual museum" takes visitors through a choice of galleries one popular tour is called "Treasures of the Science Museum".

More than a third of the 'virtual visitors" this year come from schools and educational centres. As more schools become connected. "the museum is faced with the challenging of expanding its traditional remit to a new and much wider community." says Mr McLaurin.

'The 'virtual museum' is just a part of what we will soon be calling 'virtual education,' which is also a challenge

Babbage, called "the parent of modern computing" was a self-taught professor of mathematics, who with a colleague, Ada Lovelace, designed the famous machine to help calculate vast numbers of logarithms.

riculum," he adds. In spite of the Internet links, Mr McLaurin is confident that the online services will not replace "real" visits to the

"Researchers, schools, tourists and families will always want to experience the real thing," he says. "But a virtual museum does allow distant visitors from, say, Manchester or even Mexico, to benefit

service speaks.

Big increase in the

use of Lotus Notes

The use of Lotus Notes,

IBM's unique groupware tech-

nology, will grow by 217 per

cent in 1996, resulting in it

being installed on 20 per cent

of corporate desktops, writes

This is one of the findings

from the fourth annual survey

Rod Newing.

to the current educational cur- from the displays."

The new and the old: at the Science Museum, Alistair McLaurin with a laptop computer, showing Babbage?

Engine on the Internet - and in the background the original machine, invented by Charles Babbage (1792-1871).

The 'virtual museum'

New London project shows how the Internet is helping to

becomes a reality

reshape the face of education and research

Within the London museum, 240 users can also surf the net and communicate via electronic mail. The aim is to increase these internal facilities to 400 Internet users this year. More than 300 groups

visit the museum each day during term-time. Visitors can also take a "virtual side step" and visit galleries at other museums around the world.

"Projects such as the virtual

tion revolution," comments Mr Mike Maunder, marketing director of Data General. The Internet, he adds, is "helping to reshape the face of education and research". The Science Museum's Web

museum are very much at the

cutting edge of the informa-

pages can be accessed on: http://www.nmsi.ac.uk/

Michael Wiltshire

### Multimedia partnerships

A Interdes with Marco De Benedetif

£800m. But technology has a nasty habit of veering off in unexpected directions. De Benedetti's point about ATM is that it is merely an enabler, if a business concentrates too hard on the bits and bytes of one invention it might lose sight of the bigger picture.

De Benedetti cites IBM's purchase of software giant Lotus in order to gain the Notes groupware product. With the surge in Internet usage, many work groups claim you can get Notes facilities from joining the World Wide Web. In De Benedetti's view, that raises questions about the price IBM paid for Lotus - "the Internet arrives ... and throws \$6bn out of the window".

De Benedetti claims Telemedia will be nimble enough to survive in this bewildering and unpredictable world. "In our industry it's certainly been the case in the past that leaders in one generation didn't stay at the top," he says.

The challenge is to maintain the momentum of change, and he has no illusions about that

being easy. "To transform yourself is very hard. Olivetti was born 80 years ago as a typewriter company. Then it became an electric typewriter company then it changed into a

personal computer company. All of those moves were traumatic for the management." Today, De Benedetti characterises Telemedia as the mech-

anism by which Olivetti will effect the next transformation. If it boasts knowledge inherited from Olivetti, the company will also have sober ambitions dictated by De Benedetti.

Infostrada will develop the Italian phone market, but for moves outside of its native territory Telemedia is quick to recognise the resources of third parties. "I don't believe in global

operations without partnerships," he says. Hughes was chosen as one partner for its unquestioned knowledge of the satellite business. "It has a 70 per cent share of the world market."

He points out that once you are relying on satellites, markets are not denoted by political, economic or demographic boundaries. "Your market is determined purely by the footprint of that satellite's broad-

### **loint ventures**

He appears wary of setting too much store by any one management strategy. But Telemedia is an example of De Benedetti's belief in "very focused centres of competence". The proliferation of affairs slip past him. Telemedia joint ventures illustrates this belief: "It was a deliberate choice to go for separate organisations, in each case. That way you get the best from each partner." Pressed on his own grasp of

the intimidating and obscure technology that underpins Telemedia's efforts. De Benedetti displays a remarkable honesty: "I'm certainly not a technical person. Actually, I'm quite ignorant about that side of things.

"But I do understand where the world is going. In the future there will be information and telecoms companies, but the concept of computer companies will be a little blt alien".

This swift reversion to the broader view could have come from the lips of his father. Carlo De Benedetti never loses a chance to speak of Olivetti in terms of political and economic developments beyond the ken of IT specialists.

Marco De Benedetti, in fact, displays many of his father's characteristics. While aides look weary at the close of a long day's briefings, he is still restless and eager to press on with business.

Much has been made of his youth. But Marco De Benedetti's energies spring from a ahead," he says. "There's still refusal to let any Telemedia a war to fight."

His father once made a celebrated attack on Italy's Fiat dynasty, the Agnellis, declaring: "You can't be an industrialist and a playboy. It's inconsistent." Telemedia clearly takes its

cue from an industrialist. One of Marco De Benedetti's two brothers. Rodolpho, works in an Olivetti holding com-The other brother, Eduardo,

is a medical doctor. Marco is open to critical feedback from the family mem-

ber who has ventured beyond the IT sector, "Eduardo is a user of technology. He tells me it's still too complicated - and he's right. We in the IT industry talk about systems being user-friendly. But we are too close to the products. Really they are very far from being user-friendly."

Telemedia's assorted multimedia moves will sink or swim on public acceptance. De Benedetti knows that complacency is the high-technologist's worst enemy.

He refers to the thriving Internet company, Netscape, as typical of new companies that can emerge practically overnight to challenge old certain-

"There are lots of challenges

### ■ News in brief

### Directory of Internet service providers across Europe

the Internet may wish to explore a CyberRoad map before starting their informa-tion superhighway journey, writes Marcia McLeod.

Users and potential users of

Developed by the European Electronic Messaging Association (EEMA), the CyberRoad maps create a directory to Internet service providers. EEMA aims to provide infor-

mation on more than 290 Internet service companies throughout Europe, exploring relationships between providers and detailing speed of ser-The number of stops a mes-

sage makes on each supplier's carried out by the Lotus Notes network, and the length of Users Europe, an independent time it takes to transmit a mesuser group. sage, are highlighted. Supplier The explosion in the use of relationships are important Notes is partly caused by the because they could affect the reductions which IBM have allowed Lotus to make in the speed of transmission. price of the Notes client. This For example, if one service provider buys "backbone" has encouraged existing users space from a different provider, to make Notes applications

the message sent by the intermore widely available within net-user may have to travel their organisations. through two parts of the net-IBM claim that the cuts have work, thus taking longer or given market share without costing more in the process. affecting profitability. This has Customers may be better off resulted in the sale of more going direct to the primary ser-Notes client licences in the last

vice provider. The CyberRoad six months than in the first six maps also indicate whether the service provider accepts com-The survey finds that the

mercial traffic, as some are greatest threat to Notes is the designed solely for academic or Intranet, an internal Worldother non-profit purposes, and Wide Web. However, Notes what European language the Release 4.0, launched in January 1995, provides full integra-☐ The CyberMaps are free tion with the laternet and over the Net (http://www.mar-Lotus believe it will compete ketplatz.ch/ Eurointernet/), or effectively with the Intranet by cost £150 for print versions; providing a fully integrated details via UK telephone: 01366 environment with stronger support for interactive applica-

> Results from the survey were recently quoted by Ray Ozzie. the inventor of Lotus Notes, as the most comprehensive and detailed analysis" of Notes' usage he has seen.

The figures for Lotus Notes users are:

November 1994	900,00
January 1995	ir
June 1995	
Sept 1995	3.3r
January 1996	
December 1996 (forecast	
□ Contact: Lotus Note	
Europe: tel. 44 (0)171 91	7 2805.

### Information on electronic commerce

A new World Wide Web site has been set up to offer information on all forms of electronic commerce - EDI (Electronic Data Interchange), electronic mail and trading over the Internet, writes Marria MacLead

Called "Year-X", the service explains what electronic commerce is and how to implement it; there is news on products, services, standards and associations; plus case studies and views from the industry and users. It also maintains a directory of companies providing an electronic commerce product or service.

Visitors to Year-X may also "hot link" - transfer to another site - to the home page recently opened by the Electronic Commerce Association, formerly the EDI Association. This offers information on the ECA plus details of forthcoming electronic commerce conferences. ☐ Year-X's Web address is

http://www.year-x.co.uk; tel. enoviries: 01271 870008

### Parents look for guidance

Despite worries over pornography and lack of parental control, 51 per cent of parents in the UK would like their child to have access to the the Internet, according to a new report from Compaq, the computer company.

More than two-thirds of parents (69 per cent) believed that a home computer would improve their children's education, but one in three were concerned about the Internet's "unsuitable material" available

## **Opportunities for innovators**

The growing influence of theInternet is part of a deeper change in the Vans market

The ineversible rise of Internet communications is changing the nications. In the post, suppliers could add value to basic telecoms in a number of ways – electronic mail (e-mail), electronic data interchange (EDI). directory services and so on. However, when a new breed of value-added vendors came along offering internet access. the so-called value-added net-

work services (Vans) market Internet-based communications services are eating into the traditional Vans suppliers' revenue base - leading them to diversify. The e-mail market is the first area to feel the effect. You can already see the influence of the Internet on e-mail services," says Mrs Jolanda Goverts, editor of the Ovum news service, Vans Markets Europe. "Gateway access to the network is expected to generate the major growth in the next few years and the cent of it. Between now and 2000, we estimate an annual

net gateways." But it is not only traditional e-mail services which are switching to Internet-based communications. Many kinds of transactions are being diverted from traditional com-Internet. A recent report from Forrester Research expects Internet-based transactions to

growth rate of 90 per cent for

e-mail services through Inter-

double by 1997. It says that in the next year, three-quarters of Fortune 1000 companies are expected to move from the current use of the World Wide Web (WWW) - as an extension of the marketing department

to using it for real business. This assumes a significant rise in Internet "transactions' other than conventional e-mail messages. Chiefly, the increase will come from electronic "orders" for goods and services and electronic payment by But it is unlikely to have any impact on interbusiness electronic document interchange (EDI) - another key area for Vans suppliers.

At present, conventional Internet-based e-mail services are neither secure enough nor robust enough to carry this type of business transaction, This is reflected in Ovum's research: "There is no detectable influence on the EDI market because people don't see the Internet as being reliable enough yet. Businesses are sticking to X.400 connectivity because it is better technology. It gives message acknowledgements and so on," says Mrs

The X.400 specification is an tronic mail which provides for secure and reliable transmissions of messages across a network. An X.400 gateway service gives businesses access to this as the foundation for secure business communica-

Gateway services are a traditional source of revenue for Vans suppliers. In the past, the bulk of the revenues have tives to X.400. But the balance is shifting. According to Ovum,



for members of Online UK which offers a range of program newswire, hobby clubs, health and fitness features, sports reports and embership costs £14.99 a me

revenues from X.400 gateway services in Europe are expected to overtake revenues from proprietary services by 1999. X.400 is expected to grow at 67 per cent a year up to 2000, says Mrs Goverts: "Vans suppliers are moving to X.400. BT in the UK, for example, provides internet services. But although it is not promoting it, it recommends X.400 for com-

merce. It is also worth noting

Internet, but it also provides

The influence of the Internet being felt in the world of EDI. however, Mrs Goverts notes that businesses in Finland use the Internet for EDI because "awareness is much higher". There is no evidence to suggest that other European countries will follow the model in Finland - but at least it suggests that it could be a possibil-

The growing influence of Internet is also a part of a deeper change in the Vans market. Deregulation and

increased internationalisation of the telecoms market has made some market sectors unprofitable. Basic telecoms services, for example, are better provided by the large suppliers: "It is a defining moment for Vans suppliers. They can't compete on the basic network services - running networks is not where they can add value any more," says Mr Chris Gahan, a data solutions manager at BT.

They have to move away from the plumbing and find ways to add value with things like project management and managing outside services like virtual private networks," he

Mr Clive Curtis, product manager at services supplier MFS Communications, agrees: "Our primary business is in supplying virtual private networks for business. Modern networking technology is comthe expertise to serve our customers. We see our potential in providing management services for networks - expanding outwards rather than upwards into the application-specific

He goes on to say that MFS sees great potential in what he calls "total area networking": "There is a gradual evolution towards total area nets especially now we have got rid of the bottlenecks in the wide

area networks with new technologies like frame relay," he There is no doubt that the have shaken up the Vans mar-

new communications technologies and advent of the Internet ket. But equally, there are still plenty of opportunities for those suppliers prepared to

## US companies are leading the way

■ Virtual private networks — By Philip Manchester

Changing work patterns are a big incentive for companies to install VPNs

he convergence of computers and telecommunications has opened the door to new ways of communicating. Traditionally, telephone systems are 'hard-wired'; the functions they perform are built into the hardware. But with computerisation, modern telephone systems are, increasingly, 'soft'. They can, for want of a better term, be 'intelli-

Modern features we take for granted - such as itemised billing and call-redirection - are possible because of the 'intelligence' of modern telecommuni-

Virtual Private Networks (VPN) are another example of the same phenomenon. Software technology allows telecom suppliers to provide individual companies with their own private network, using the standard public switched network This means, for example, that an incoming telephone call can be re-routed to another employee of the same company, regardless of geographic

Although the concept of private networks has been around for some time, they are gener-ally based on dedicated, leased lines. VPN looks the same as a dedicated network to users but it is based on conventional public networks.

"Companies have two options for enterprise networking. They can go for a managed service-based on a dedicated network or they can go for VPN," says Mr Jeff Ace, director of IBM Global Networks.

"VPN has all the attributes you need for an enterprise network - but it allows you to go your own way with familiar a network and get the economies of scale which come from using the public switched tele-

have, of course, been around since the early 1970s. They have given large companies the ability to view their telephone networks as single resource - both for voice and

data traffic. Since the mid-1980s, when Sprint and AT&T launched the first VPN services in the US. a growing number of corporations have opted for the VPN approach. The result is that the US is the most mature market for VPN services. According to a recent report from market researcher Ovum, the US market for VPN services in

1995 was \$3.6bn. Because of the maturity of the US market, only moderate growth is expected between now and 2005, when the market will be worth \$5.5bn.

The picture is very different outside of the US. Ovum puts the market in Europe and Asia-Pacific at \$10m last year, rising to \$7.9bn by 2005. There are several reasons for this growth: telecom companies want to cut costs and one way of doing this is to move their large corporate customers from dedicated networks to the public switched network.

A technology, which makes VPN viable, has improved. "We are investing heavily in innovations such as frame relay technology which gives much greater and more flexible bandwidth," says Mr

t the same time, the

This technology not only speeds up traffic on a network. it also allows traffic - specifically voice and data - to be

"Companies are going to VPN because they are looking to consolidate or expand their networking to meet changed work patterns. VPN covers both voice and data," Mr Ace explains.

Changing work patterns are another significant incentive for moving to VPN. "Businesses are recognising that they must become more customer-oriented. So activities

sales are among the main change agents," says Mr Chris Gahan, data solutions manager "In the 1980s, companies

tended to rent private circuits. But now they are looking for different kinds of function from their networks and VPN offers a better option. Traditional telecommunications were inward-looking. Now it is important for companies to look outwards."

The type of network traffic that businesses need has changed, he adds. "The traditional operational systems that companies use are based on transaction-processing with predictable traffic levels. This suits the private circuit services. But companies today need more flexibility and a network to handle peaks and troughs. The private circuits can share bandwidth and is hatter suited to the new environment where you need a blend of services.

VPN also offers other bene fits: "The 'technology charn' is still with us and companies want to protect themselves from change. At the same time, new skills are needed - as with any fast-moving technology. VPN can insulate companies from the need to keep up with the changes," says Mr Ace of

At BT, Mr Gahan also points out that VPN "allows companies to scale their networking needs up and down more easily and they can derive cost-benefits" from sharing a large telecoms resource. In many ways, VPN is a natural progression for business telecoms. Provision of networking services whether for voice, data or a combination of both - is a utility and, therefore, not part of 'core' business activities.

The nature of the global telecoms market means that prices will be competitive and it will to-large organisations to opt for VPN. For once, the interests of suppliers and customers

allyersing technic

"Every bookseller that Γve spoken to who uses the technology reports increased sales. concludes Mr Watson. ☐ For more information. http: //www.aladglynbook@alad-

almost entirely online, ventur-

ing out to buy stock and to

relied on retail trading, they

to me as to anyone else," says

Mr Watson. "And it's as easy

for me to buy from them as it

is from someone down the

road. Ultimately, this means

that more people are getting

more of the books they want.

and that encourages further

It can only be good news for

J R Hartley and other, less

mythical, writers. It is also

good news for booksellers.

reading and book buying."

"It's as easy for them to sell

post the books sold. If they

would not exist.

Internet: din.co.uk available from: the Internet Secondhand Bookshop on http:

www.cityscape.co.uk/us. ersids36i □ Kenny's Bookshop sells new, second-hand and antiquarian books of Irish interest: http:

innous.ioLieikennusi □ Out-of-copyright books are available from Project Gutenberg on: http://jg.cso.wiuc.edu/

### With TeleVault, at least your business won't be destroyed.

e live in precarious times. Fear of disaster drives us to ever more elaborate security measures earthquake-proof buildings, fire-proof offices, and more. Yet the threats we make for ourselves are those that we feel most defenceless against - and amongst these is the threat of terrorism.

To your company, protecting against it means making every effort to make certain that your people are as safe and secure as they possibly can be. But what about a less often considered aspect of your business. What about your data?

Because, unless your data is safe and sound, neither is

your business. It's an asset that your business simply couldn't

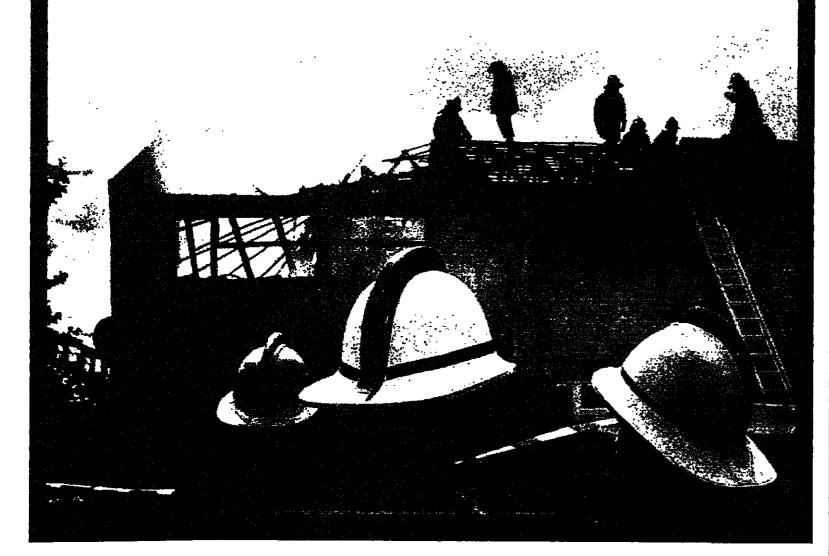
function without, Imagine all your records, correspondence,

databases, accounts, documents - all gone in an instant.

Now there's a way to ensure that all your data is kept well out of harm's way. TeleVault" - from Securicor. TeleVault automatically stores and retrieves data electronically, to and from an off-site location, safe and sound, and protected the way only Securicar know how.

With TeleVault, your whole distributed network will be stored regularly, accurately, safely and securely, without users ever needing to do a thing. And they can also retrieve data instantly with consummate ease, thanks to the intuitive Windows" interface.

TeleVault - it's the safest deposit for your data. For more on Securicor's new TeleVault service, call us right now on 0181-722 3344 or fax us on 0181-770 1198.



## How the Internet boosts book sales

■ Searching the Net - By Joia Shillingford

The slowest thing is the actual physical shipment of the books from source to customer

orget thumbing through ✓ Yellow Pages to find Flu Fishing by its author, J R Hartley - a familiar, nostalgic theme in many television adverts for Yellow Pages in the UK. Today, the cool way to search for second-hand books is via the Internet.

No-one knows this better than Glyn Watson, whose bookfinding business has expanded since he went online a year ago. "The Internet is the friend of the printed word, not its death-knell," says Mr Wat

His Shropshire-based business. Glyn's Booksearch, can only be reached by single-track road, yet he can search for outof-print, second-hand and antiquarian books anywhere in the

In many ways he is a classic example of the new breed of Internet professional. "I sit here, like the spider in the middle of a web," says Mr Watson "finding books in North Carolina and having them shipped to Japan - all using electronic

Sometimes Watson uses databases accessible via the Internet to search for books. Even when more traditional methods of book-searching are involved, electronic mail via the Internet (the global e-mail and information network) often plays a part.

"I may use an online database of over a million books located in the North West of America to find a book for a customer 20 miles from here, says Mr Watson. "Or I might use slower, though reliable, UK trade press advertising sources to find books for a customer in Australia.

"I collate a large and detailed list and e-mail it to her in seconds; so old and new mix seamlessly."

The Net helped Mr Watson find several volumes of British 19th century poetry, in sumptuous decorated bindings - for a UK customer. The volumes were scattered all over the US. Or he might buy books in the UK but send a quote by e-mail



The J R Hartley television advert: today, the Internet offers an alte to the Yellow Pages for those searching for second-hand hooks

anywhere in the world. Mr Watson believes that

those looking for out-of-print books now have a far greater chance of getting what they want simply because of the increasing number of Internet links among members of the second-hand book trade - with international frontiers being The slowest thing is the

actual physical shipment of the books from source to customer. Even that can be overcome. Mr Watson recalls: "I had a call one afternoon from someone needing an obscure academic title within days.
"Minutes after he'd called

- using online resources - I'd located one copy in a small Virginia bookstore. A phone call secured it and it was on its way by airmail - all within half an hour of the original request to me." "With variations, that's not

an exceptional story," adds Mr Watson. Credit and debit cards and electronic card readers simplify payment. The US is ahead in electronic booksell-"Many booksellers which carry extensive stock and are essentially retailers (not book searchers) are in places so remote, they make Shropshire look like Oxford Street."

Some of these dealers trade

Meson of March

onic commen

rnet

IX

## More than 'Hollywood online'

The first lessons about 'Vod' services are being digested. Progress towards a world of interactive TV is under way

instant access to the latest blockbuster cinema films through the telephone network. But although this is the inst image to come to mind when Vod is mentioned, the service is about a great deal more than "Hollywood online". Reports on Vod trials in Europe and the US emphasise access to films in order to draw attention to their experiments. But behind the special set-top computer which delivers Vod

to the home TV lies a vast and growing infrastructure. The experiment is as much about testing the technology which delivers the services as it is about finding out how peoi ple will use them.

First of all, simple Vod is not likely to be a big money spinner for service suppliers. After royalty payments and the current high cost of delivery - together with the need to keep prices competitive - Vod alone is not economically viable.

Video-on-demand, therefore, is only part of a range of what are being called interactive ¿ television services. (see also

Video-on-demand (Vod) Paul Taylor's report, below.)
services are about You have to offer inters "You have to offer interaction with banking, shopping, games and information services, too," says Mr Andrew Creci, UK marketing director for Silicon Graphics, a leading manufacturer of video "server" computers. Trials all combine these services with Vod.

The Cambridge Interactive TV trial in the UK is an example. It has brought together a group of specialist companies to create the infrastructure.

ICL, the computer company, and Cambridge Cable, a local cable TV company, Acorn Computers and others are supplying the infrastructure components. As with other trials, the infrastructure to deliver services is complex and expen-

Powerful video server computers are connected through a fibre optic cable network and advanced communications computers to the "set top" computers in the homes.

The trial is supported by a group of services suppliers such as the BBC; Anglia, the local commercial TV company: NatWest Bank and the Tesco

ting the technology and learning the lessons: BT's video-on-demand I loswich, using Sequent SE70 highway controllers

supermarket chain. Between them they cover the complete range of interactive TV ser-

Lessons are being learned from this and the other trials. Mr John Burton, telecommunications marketing manager at Sequent, the specialist US computer manufacturer. . refers to advances in the infrastructure for delivering services, for example - "the vast majority of leading telecommunications companies throughout Europe and the rest of the world are

engrossed in trials at the moment. We are involved in the administration systems of three of the major ones and are learning how to make a commercial service out of these technologies," says Mr Burton.

Sequent supplies what it calls "highway controllers" for interactive TV services. These systems handle the control and management of the service and work independently of the 'video pump" - the computer which stores and delivers the moving pictures. Mr Burton

says that this is proving to be a workable model for delivering high quality services.

There are still some problems with the delivery technology but these are minor issues and it is moving forward quickly. The problems come when you scale up from the

trial to a full-blown service.

By separating the video pump from the interactive services we are able to scale the systems up to hundreds of thousands of users." he says.

### **Partnerships**

Sequent is involved in three trials in partnership with the US software giant Oracle. In the UK, it is working with BT: in Germany with Deutsche Telecom; and in Italy, with Telecom Italia.

Mr Creci of Silicon Graphics also mentions the problems of scaling up trial systems:

"We are working on a trial with NTT in Japan with 400 people. But the plan is to connect tens of thousands and for large-scale deployment you have to take a different approach," he says,

Silicon Graphics chief executive Mr Ed McCracken recently criticised many trials for not paying attention to useability

A project by Video Graphics, one of the leading manufacturers of video 'serv

igh the technology problems are complex, they can be solved

and scaleability. From its involvement with NTT and with Time Warner in the US, Silicon Graphics has learned that although the technology problems are complex, they can be solved. But it will be

هكذامن الأحمل

"The work we are doing with Time Warner in Orlando is ten times too expensive, but we know we can make ten times

the price in three years. "Those companies that have not taken that kind of technol-

are reasonably cost-effective are irrelevant. They are missing the point," comments Mr McCracken. Silicon Graphics says it has also learned another valuable

implement systems today that

lesson from the trials. The quality of the service must at least equal that of present TV and video distribution channels: "Our view is that content is

king. You must be able to deliver the best quality service. ogy step and are trying to which means you need the

bandwidth and expensive

"This is why it is expensive. But in four or five years' time, prices will come down and suppliers will have to rely on pushing high-quality services." notes Mr Creci.

The first lessons about Vod services are being digested by the various trial sponsors and progress towards a world of interactive TV is under way. It is still too soon to say, however, how the market will



## New signs of confidence

The digitisation of data is paving the way for a wide range of 'two-way' multimedia services, including interactive television, video-on-demand, home shopping and multimedia kiosks, writes Paul Taylor

lthough the early Texas and Bell Atlantic has take-up of interactive services in the US and elsewhere has failed to match some of the early over-optimistic predictions made at the start of the 1990s, most analysts agree that interactive media will eventually be a big pany claims the response to and dynamic consumer mar- the service has been

The evolution of interactive media in the bome is likely to take place slowly - over the next 10 to 15 years and beyond. but the impact on our lives is expected to be dramatic," note the authors of a report on interactive mass media, prepared recently by the London Business School.

Among the other conclusions, the LBS study suggests: ■ Information and entertainment, especially video games, are seen as the drivers of adoption for interactive media. Marketing communications (advertising) and transactions (home shopping and banking) will fol-

low, and may eventually become the main commercial use of interactive mass media. ■ The use of interactive technology at work accelerates the adoption of new technology

in the home. ■ Early use of interactive media in the home will mainly be through the PC, rather than television.

A switched broadband cable 'information superbighway' into individual homes may well not be cost-justified, except in the very long term as older wiring needs to be replaced.

uch of the interest in interactive services has focused on interactive television and video-ondemand, one of the services which interactive TV can deliver. Last year, Ovum, the UK-based technology consultancy, estimated that at least 50 trials had been completed or were under way.

Two main technologies are being employed in the trials with the choice largely reflecting the existing infrastructure and the background ; of the network operator. Where the network is largely fibre-optic cable or a mixture of fibre and coaxial cable, ATM (asynchronous transmission mode) has emerged as the favoured option. However, ADSL has proved to be a viable alternative, particularly for the local telephone companies where the infrastructure is mainly copper wire. In some cases ATM and

ADSL have both been used. In Europe, trials have included Online Media's ongoing Cambridge Interactive TV trial which is delivering a wide range of interactive services including video-on-demand, home banking, home shopping, local information, games, educational material and news.

In the US, a number of interactive TV services have moved from the trail stage into commercial deployment. Among these Time Warner has launched a service in Orlando, Florida, Southwestern Bell is deploying a large network in ping and information services.

launched a 384-channel service in Dover Township, New Jersey. The Bell Atlantic service, like several of the trials, uses BroadBand Technologies ATMbased FLX switched-digital video technology. The com-"extremely positive." Mr Salim Bhatia, BroadBand's chief executive, says: "We know that people want these services, and now we know that they are

willing to pay for them." But despite this upbeat outlook, some studies have suggested that consumers are unwilling to pay the subscriptions necessary to justify the hefty investment required to build an interactive network. In particular, some trial have suggested that consumers are only willing to pay a small premium over video-rental costs for video-on-demand.

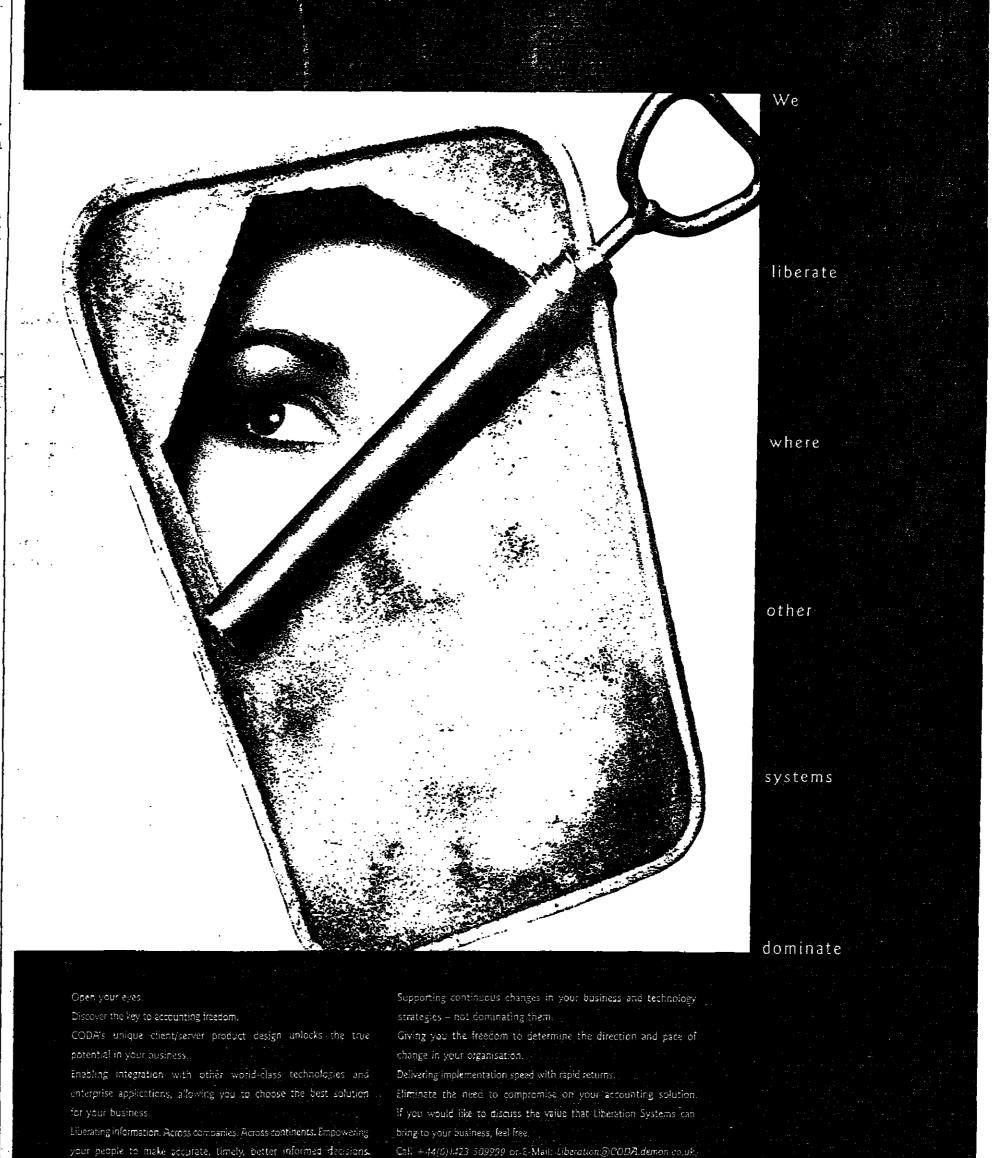
Some analysts suggest that "near video-on-demand" where films and other programmes are shown continuously on a large number of channels throughout the day so the consumer has to wait only a short time, perhaps 10 minutes, until their chosen programme starts - may provide a more viable lower-cost alternative.

However, observers such as Kris Nasta who is in charge of BroadBand's European Operations, argue that consumers have yet to see the full range and quality of services which will be available over ATM-based services. Neither is he worried by the prospect of new competition for interactive services from other delivery systems, including digital satellite the Internet.

Recently, a number of companies have announced plans to provide World Wide Web accessed television over the Internet, offering the prospect of widely-available cut-priced programming. Indeed, the recent rapid growth of online services and the World Wide Web, in particular, has encouraged many of interactive TV's early proponents to shift their focus to the growth of online

services and the Internet Among the Internet "virtual shopping" arcades, established over the past year, is Barclays-Square, launched by Barclays Bank and Jersey-based Supernet whose early 'tenants' include Sainsburys, ToysRus and Argos. Similar secure electronic shopping malls include the Internet Shopping Mall and CUC International

Meanwhile, a growing number of merchants on both sides of the Atlantic, ranging from retailers to financial services firms, stockbrokers and employment agencies have set up their own interactive Web pages. Many sites began as experimental or pilot schemes, but this is changing fast as confidence grows in the security of the Internet for business, and a second generation of Web sites provide real opportunities for electronic commerce, interactive shop-



Liberation Systems for Enterprise Accounting

## Positive feedback from trial

A growing number of banks is beginning to explore the possible benefits

f a visit to the bank man-ager still seems more akin to a meeting with the devil than a supplier-client partnership, take a new look at the face of banking - for today's banking customers are as likely to find themselves talking to a multimedia touchkiosk or a video screen as a real live person.

National Westminster was the first of the big clearers to take advantage of the retail opportunities being presented by new technology when it launched a videoconferencing customer interface in July

"We recognised we had a problem ini providing adequate service at acceptable cost," explains Martin Reynell, project director of the Network Strategy and Development Venture Branch.

\*Customers face-to-face contact with people who could deal with their enquiries, but the bank wanted to keep costs down by not providing experts on every area the bank deals with in every

A six-month trial project, Remote Access to Expertise. went live in 10 branches in the Birmingham-Bedford-Milton Keynes area to enable customers to use the videoconferencing system to obtain information on the NatWest Home Protector package of building

and home contents insurance. Once shown how to use the system, customers called up NatWest Insurance Services in Bristol to connect to one of eight trained experts. A corner of the computer screen pictured the NatWest employee,



discontinued, but NatWest is

considering installing multime

dia touch kiosks linked to

videoconferencing in some

Rather than speaking to an

expert throughout a "meeting",

customers could obtain a vari-

ety of information, including a

quotation, say, on home insur-

could be used to call up an

expert to answer any questions

the system could not answer.

This is an approach also being taken by Barclays.

Kiosks offering product infor-

mation were opened in eight branches from Newcastle to

Brighton early last year. "Feed-

back from staff and customers

has been good," comments Anwer Shah, head of Barclays

accepting the use of this tech-

nology, helped by the growth

of multimedia PCs in the

Further projects include the

provision of six kiosks for

Camden Motors, a Barclays

subsidiary, offering details

and used cars and ancillary

"Customers are increasingly

Multimedia.

ns; the videoconferencing

with the rest of the screen displaying information on insurance, such as cover and premium. Details keyed in in Bristol – type of insurance, sum insured, etc - were supplied by the customer using the videoconferencing system.

Any questions or problems could be dealt with immediately, rather than through referral to a third person. Once the customer finished talking to the expert, a quotation. uments could be printed out at the customer's branch.

Positive feedback led Nat-West to launch further videoconferencing projects. A for-eign advice link was opened between a Southampton branch and an international banking centre in the town in February 1995, providing information on such subjects as paying money abroad and documentary credits. The Wirtal went live last May with a gen-

eral customer advice service. A tax advice service linking branches in Worthing and Canterbury to a Brighton tax office helped customers, especially senior citizens, to complete last year's tax returns.

The Home Protector and for-

services, such as insurance and

Three sites in Slough and three in Nottingham are split between Camden dealerships

and shopping malls. On January 8, Barclays launched "Barclayzone" in three branches – Fenchurch Street, Crawley and Maidstone – to offer details on investment and savings products. Customers use touch kiosks to obtain information, including a real-

opinion. Customers who wish to transact a deal can then make a live video l<u>ink</u> to Barclays Stockbrokers in Glasgow to complete the transaction; those who do not have an account can open one over the video link. A number of new accounts were opened in the first 10 days of the system's

Other banks are beginning to explore multimedia technology, too. Last October, Lloyds. for example, launched two LloydsPoint kiosks at the University of Sussex and Derby University to provide students with information on products and a telephone banking service for use when a branch is not available.

The Sussex LloydsPoint is located next to a cash point and is open 24 hours: the Derhy kinsk is sited inside the Student Union, which is open from 8am to midnight. Each has a video link open from 8am - 10om to connect to Lloyds' telephone banking ser-

Students are using the kiosk to obtain information about student packages, plastic cards, travel services and other link to check balances, transfer money between accounts, and find out why the cash machine will not give them any money.

■ Home banking - By Alison Smith Consumer interest is rising

Almost one in four people think they will be using home banking within two

to five years either bankers nor technology experts doubt that within a few years the systems will be in place to allow just about all personal customers to run their current accounts and buy complex financial products

sitting rooms. What is more open to question is how swiftly that poten-

tial will be realised. A survey carried out last autumn by Mori for ICL Financial Services suggests that readiness to consider using home banking is rising

from the comfort of their own

In all, 45 per cent of British adults would use a home banking service available through a television or PC: when a similar question (referring only to services through the televi-

**European Information** 

**Technology Observatory** 

1996

Get a copy of the EITO's

new edition!

4th edition of the unique and indispensable

yearbook. 370 pages of up-to-date and valid

information on the whole European Information

and Communcations Technology (ICT) market.

■ The latest European-wide statistics

Towards the Information Society: New

The ICT Market in Europe's Banking

■ The Evolution of ICT Distribution Chan-

1 1996 will be available in March. e per copy. ECU 48 (plus VAT and log)

Pride per copy phis CD-ROM: ECU 66 (plus
VAT and misling)
CEROM only available together with the

For orders or further information, please contact:

EITO c/o EUROBIT
Lyoner Straße 18, D-60528 Frankfurt,
fax: ÷ +49/69/6603-1510,
phone: + +49/69/6603-1518,
email: c.peter@fvit-eurobit.de
Internet: http://www.fvit-eurobit.de/eito

Network Services and Applications

This year's EITO contains

and market analyses

plus 1996 special studies:

and Financial Services

nels in Europe

would broaden the market fursion) was asked the previous vear, just one-fifth of those

questioned were interested. think they will be using home banking within two to five years. Paying bills, checking balances, ordering cheque books and money transfers are likely to be common transactions, while there is less enthusiasm for using it for transactions such as opening a current account, arranging

Mr Anwar Shah, head of multimedia at Barclays, believes that in just a few years customers will want to buy for themselves through the television some "commodity-type" services such as ordering foreign currency and buying home or motor insurance.

'We've seen a sea-change in technology over the last 18-24 months.

"There are now a lot of people with multimedia PCs at home, and some companies are now looking at getting Internet access by television, which

Mr John Sturgeon, business

development manager for cus-tomer banking at ICL, says that the UK is more advanced in using technology for home banking than is continental Europe, although it is a couple of years behind North Amer-While the proportion of US customers banking by PC is

still in fractions of 1 per cent,

the American Banking Associ-

ation expects online banking to

be offered by more than 40 per cent of banks with assets of pared to the 11 per cent who were offering it last year. In the US, one of the most popular forms of computer banking is through the

Quicken Financial Network, which was launched last autumn by Intuit, the leading maker of personal finance soft-The company plans to

launch full banking over the Internet during the second half of this year, giving banks which sign up the choice of how to brand, to price and to market the service.

Although such initiatives are likely to accelerate the pace of change, it is too soon to suggest that the growth of home banking means saying farewell to the branch networks of the high street banks in the US or

Mr Steven de Looze, a senior executive in delivery channels at National Westminster Bank, Britain's biggest bank, believes the shift away from branch banking will continue, but adds: "We are not talking about the complete demise of

branch network. "We are social creatures, and there is no way will we do all our banking and working over the television. We will still need face-to-face contact for some products and services."

convinced that substantial investment in developing a complete range of online banking services is worthwhile. Mr Gordon Pell, general manage of retail operations at the Lloyds TSB Group, says: "All our planning assumes that there will be no charges on the mass market current account for the foreseeable future, because no one dare to do it.

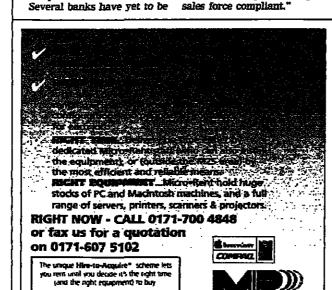
"If that is the case, there is no great advantage, because the service is not cheap and there are only a small number of people whose financial lives are complicated enough to

Agreement about the role of technology in selling more complicated financial products to the mass market at home is more widespread. It is seen as an aid to the interview with a sales agent in the customer's home, instead of a replacement

"Customers welcome the opportunity to do 'what if' calculations on, for example, mortgages in the absence of a sales person," says Mr Shah.
Many of the UK's large life

assurance groups have already found that giving computers to their sales agents assists them in the sales process by enabling them to produce in the costomer's home, during the sales process, quick and accurate details of what particular policies would produce for different individuals.

For the UK's retail financial els of customer confidence in the quality of advice being given, the use of computers by sales agents in millions of customers' homes has an added advantage - although not one that the organisations are so keen to shout about. It can be a further check in ensuring that sales agents give advice in accordance with regulators' requirements. As one banker said: "It's a way of making the sales force compliant."



Broadcasting and cable - By Raymond Snoddy

## Saturation point looms

Special information channels or printed television programme guides will help alleviate the dangers of something akin to entertainment overload

The increasing abundance of new media and information provided by the emerging digital technoloproblems, according to a research report by SRI International, the former Stanford

time share price or a stock In its latest study of the new media world, SRI warns that television is going the way of business computing, which has already seen a shift from the days when data was a precious resource to the current "information overload". In future, viewers faced with

hundreds of television channels are going to need reliable them make sense of the vast number of options. Special information channels or printed television guides will help alleviate the dangers of something akin to entertainment overload. But SRI believes two kinds of participants will be specially favoured in the new world those who can develop and extend strong existing brands already known to viewers and those who are first to enter new niche sections of the mar-

"New-media visionaries often proclaim that old-media entities will quickly become dinosaurs. The reality is that existing brands will be key vehicles for new-media success," SRI believes. Existing broadcasters can

use their established name to launch new channels. In the US, the sports channel ESPN has launched ESPN 2: while, in the UK, one of the most famous names in British commercial television announced in December it would launch a raft of new channels devoted to particular topics each devoted to subjects such as motoring, health or cooking.

SRI also argues that being first in a new niche is absolutely vital even if that market is not popular at the moment In the US, the Golf Channel, a cable television channel, is unlikely to attract imitators.

The small, enthusiastic audience would simply fragment. In the UK, Granada, in moving into what is the television equivalent of the glossy maga zine for the first time, is putting down a marker for the future. Once Granada's televi-

lished, it will be very difficult for anyone else to challenge. Such strategic competitive considerations are coming to the fore as leading internstional corporations plan first the 150-channel world and later, probably before the end of the decade, even 500-channel

Already, billions of pounds are being invested on digital satellite projects - not just in the US or Europe but in Africa. in competing projects in South America, in the Middle East and in Asia.

In the UK, British Sky Broadcasting, the satellite com-pany controlled by Mr Rupert Murdoch, is now capitalised at more than £8.7bn. Yet although detailed planning has been carried out the decision to launch a 120-channel system has not yet been taken and could be delayed into 1998 because subscriber numbers are still growincluding cable-linked homes in the Irish Republic.

ven in the UK, new channels are being cre-ated all the time. Last autumn, BSkyB added no less than seven new programme services including the Playboy Channel, the Sci-Fi Channel and the Disney Channel.

Mr Sam Chisholm, the BSkyB chief executive, believes that the best way to keep the number of subscribers rising is to continue to add new programme services.

Cable is making its own contribution to programme diversity by seeking out its own exclusive offering to try to differentiate itself from satellite. Channel One, owned by Associated Newspapers, is offering 24hours-a-day local television news in London and recently



Cable laying in the UK: intense research programmes in interactive

pread to cable networks in

The Mirror Group is offering Live TV, a round-the-clock entertainment channel carried on cable networks in London and Birmingham which will also expand to Scotland. Its output has been galvanised by Mr Kelvin Mackenzie, the former editor of The Sun, who has introduced Topless Darts, the Canary Wharf soap opera with the guarantee that "You're never more than five minutes away from a snog" and a "News Bunny" which adds a little extra something to news

The process never ends which means that SRI's concern about a scarcity of context and an mability of viewers to cope with the diversity may not be very far off in Europe. This year, two new, competing, 24-hours-a-day television weather channels will be launched, and there are plans for a new channel televising the European Parliament plus lots of channels created out of the libraries of the existing

For good measure, the UK and Sweden have both announced plans to launch digital terrestrial television - an additional 20 channels or so broadcast from existing land-

based transmitters to conven-

tional set-top aerials, although

a digital decoder box will be needed by viewers.

At the moment BT is also conducting commercial triels on the possibility of providing digital information and entertainment-on-demand down existing telephones.

For some, creating two-way interactive communication systems is the main goal. Tele phones clearly do that although capacity is at present limited. Cable, particularly fibre optic cable, provides vir-tually unlimited carrying capacity although cost is still a

The three largest cable com panies in the UK - TeleWest, Nynex and Bell Cablemedia - have set up a research tive services including providing easy access to the Internet Some - and they are usually

satellite providers and operators - argue that land-based super-electronic highways are expensive and inflexible. Satellife can provide the most cost-effective delivery of data and pictures and two-way communication is possible, too, via simple modems in the black box decoders connected to the telephone network.

All of which suggests that the new age of information and entertainment is likely to be supplied by a diversity of high-

# allenge

converging technic

n under-

## What IT developments are taking place in your industry?



FINANCIAL TIMES Newsletters &

### You can find out by reading:

If you would like further information on any of the

reports opposite, please complete

and return the coupon below to: Melanie Stewart.

FT Newsletters & Management Reports, Maple House,

149 Tottenham Court Road, London W1P 9LL.

Telephone: +44 (0) 171 896 2325

Fax: +44 (0) 171 896 2333

• ELECTRONIC DATA INTERCHANGE IN THE **AUTOMOTIVE INDUSTRY** 

Managing information flows for greater profitability by Jerrold Donington

Competitive success in the automotive industry hinges on the effient performance of the supply chain. This FT research report reviews the automotive industry's progress in implementing EDI to enhance supply chain visibility and increase profits.

### • IMPROVING RETAIL EFFICIENCY THROUGH EDI

Managing the supply chain by Mike Hendry

This report assesses the critical factors and issues retailers wishing to integrate EDI into their business and computer systems must address, such as choosing between competing EDI networks and software packages. Other data communications technologies are compared with EDI and factors influencing EDI's future development are discussed.

### • THE IMPACT OF TECHNOLOGY IN THE TRAVEL INDUSTRY Developments and trends

by Irene Viitos Rowe

The travel industry is one of the world's largest consumers of telecommunications services. The Impact of technology in the travel industry, Developments and trends, summarises the key technological developments as they apply to each sector of the international travel industry — hotels, travel agents, airlines. car rental organisations, and travel service providers and the business traveller.

lease send me further details of:	1225 Edustry	
lame:	***************************************	
	Company:	
ddress:		FT
		FINANCIAL TIMES
	Fax:	Newsletters & Management Reports

MESDAY MARCHEN

ng and cable

oms

AND DESCRIPTION OF THE PARTY OF

a Contain territory

With the Transit State

and the same of th

Authority of the same of

For the Contraction

Marie The State of the State of

time of the same

\$20000 \(\text{-2-12}\)

To be also as

And the second s

Commence of the contract of . Bookstan in Lebber

. ಆಗಾಗಿಗಳ ೧೯೮೮ ಕಲ್ಲಿಕೆ

INCLU INE

Barrell Commence of the Commen

ading:

GE IN THE

**robiability** 

ট্ৰান্ত প্ৰথ নি বিশ্ববুলন নিৰ্মাণ

FACT

201 17 3 PES

17 (Tanger) - 4

12.7-22.

ar Galla ar Free and

1222.4590

IN THE

minds There E.

10077

AND THE REST

is a rest

NES 75-2

dustry.

State to the Artic

WELLER TO THE TELE

make the second

load of the same

## An under-pinning for business

US company 3Com believes it can transfer some of the benefits of using networks to the small office and even the home

herever users need to gain access to infor-mation and to contact colleagues in order to get their work done - whether they work in offices or at home network-centric computing has come to the fore.

At its extreme, network-centric computing is leading to the development of cheap computing devices that are designed to connect to the Internet and have no local data storage. The idea of a standalone

computer is also beginning to disappear in the small office and home environment. This is a trend that networking company 3Com, among others, recognises and is addressing with the recent launch of its low cost Office Connect hub product.

The original purpose of networks was to share office printers and occasionally transfer files between workers, but they are now a key element in the way businesses conduct their operations. Networks have become the foundation for client-server computing; for desk-

top videoconferencing, for pull-ing together the efforts of groups of workers scattered around the globe through products such as Lotus Notes; and they offer the means for collecting and distributing knowledge within an organisation.

As staff find themselves working from home and from remote locations, they want the same network access they are used to in the office. "A lot more people are work-

ing from home, whether it is telecommuting or simply putting in an extra few hours when they get home. And they want quick access to the company network. The trouble is that 28.8 modems are too slow, they take too long to connect," says Ken Baynton, managing director of BtN Ltd, a company specialising in linking net-

ISDN lines offer a better solution. "With ISDN, it takes just a second or two to make the connection and it is much faster than modems," says Mr Baynton. He points out that although ISDN provides quick network access, there is a perception that it is still too expensive - even though users typically pay only for the time accessing the network, unlike with moderns where the telephone line is open for as long as the user is logged on.

The US company 3Com believes it can transfer some of the benefits of using networks



And the second second The PC turns into the PCTV - see also report on page 15

to the small office and even the home: "It has always been expensive to network a small office. Some companies have found that if they have a small office, it is cheaper to connect users to the central office rather than install a local area network. We have developed a new hub product that makes it much easier and cheaper to connect small groups of people," says Bob Cushing, European marketing director at 3Com.

3Com's Office Connect product handles the wiring connections between PC users and office peripherals such as faxes and printers, and outside com-

that there is a large market in networking small offices, and as homes add more PCs, there is a vast potential market in networking home computers.

However, unlike the larger and complicated corporate networks, the key to networking the small office and home is to keep things as simple as possi-

"The idea we are working towards is that the network gives people access to what they want, whether it is the Internet or the company network. We are in the business of providing the plumbing, making sure that when the computer user turns the tap, they get what they want," Mr Cushing adds. "It is important that the network access be as transparent as possible."

Tith Office Connect, 3Com carefully hid the complexity of the system, allowing customers to simply plug it into a wall socket and have an "instant" network. Other companies, such as Compaq Computer and Novell, are also targeting the small office and home market. Compaq is planning a series of low-priced networking prod-

heen designed to be simple to and other home-based systems use and install. 3Com believes such as lighting, heating and security systems.

مكنامنالئمل

Novell, with its Nest technology, aims to extend its Netware networking system to controlling home-based electronics systems and even the electronic systems within cars. Nest relies on embedding special chips into a wide range of electronic devices and controlling their operation through

standard power lines. At IBM, the idea of networking has been built into everything the computer giant does. "We have a networking division, but every division of IBM considers networking, and the demands of networking, into their product plans," says Kevin Bishop, European and Middle East marketing manager at IBM Networking Prod-

Mr Bishop points out that different types of networks are good for different tasks. For example, the Internet offers global access to a wide variety of information and communications but it is not suitable for networking applications that demand a fast response. IBM is trying to make sure that different types of networks can still communicate with each other.

## Faster access to online services

New facility offers 'multimedia the way it's meant to be - immediate, easy and fun'

he merging of telecom-munications and cable munications television interests is snawning not only increased competition in many businesses, but also helping to create new enterprises and ser-

One of these is the provision of telephony-style services using the cable television infrastructure, commonly dubbed 'cable telephony". Not only are cable TV companies flocking to the business of providing traditional voice communications using their infrastructure, but many are making a big push for access to the worldwide Internet computer network (and its popular World Wide Web service), using high-speed cable TV lines.

In Canada, for example, the domestic cable television giant Rogers Cablesystems is testing

a new service it calls Rogers a specially-designed modem Wave for Home. The service, announced in Newmarket. Ontario, last November, claims to offer "the fastest, most powerful access to a suite of online content, including the Inter-

■ Cable data communications - By Geoffrey Wheelwright

For C\$39.95 a month, consumers in this trial area use their PC and a cable connection to gain very high-speed access to the Internet and the World Wide Web.

"We've integrated breakthrough technology with Rog-ers' newly-upgraded two-way, fibre-coaxial broadband cable network to develop Rogers Wave," explains Colin D. Wat-son, president of Rogers Cablesystems.

"The service works at breakneck speed. A video clip that would normally take many minutes to download with a common telephone modem, takes only seconds with Rogers Wave," he says. "Now people can enjoy multimedia the way it's meant to be - immediate, easy and fun."

The service uses a 500,000 bits per second "cable modem", engineered for use with cable television networks, which is almost 20 times faster than the standard 28,800 bits per second telephone modem. Rogers also points out that with a cable modem, there is no "busy" signal, no dial-up - and no worry about tying-up the phone line when you are surfing in cyber-

The speed advantages are not universal, however. The performance of Rogers cable modems is dependent on how information providers configure their World Wide Web sites. For this reason, the company has a program to encourage them to take advantage of the technology.

"Through its Rogers Wave Greenhouse Program, the company is encouraging the develcoment of new content that takes advantage of the large bandwidth Rogers Wave offers," says Watson. "For instance, Lifeline, Toronto Life magazine's online publication. as well as many other organi

Continued on next page

E Digital breadcasting

## The key challenge is price

The cost of digital television sets will come down in are developed

igital broadcasting is beginning to make a big impact on the production and distribution of television programmes but its journey into the home willtake several years, following the development of cheaper digital TVs and digital TV decoding boxes.

Digital broadcasting technology involves the production and distribution of video images in a digital rather than analog form. The advantage of the digital format is that the quality of the original work is preserved throughout the production and distribution pro-With normal analog video, there is a certain amount of picture degradation that occurs at every step of the

distribution chain. In the US, digital TV broadcasts are available through services such as DirectTV's digital satellite transmissions. But the future of digital broadcasts is closely linked to the future of interactive TV and high definition TV (HDTV).

The US Federal Communica Commission has approved a digital HDTV standard proposed by an alliance of leading electronics compas but there are still some Cetails to be determined such as how to handle the transition from analog to digital TVs. With more than 300m analogue TV sets in use in the US, the FCC wants broadcasters to offer both analog and digital transmissions while the transition to full digital broadcasts takes place.

Comparisons

Although the technology for receiving digital broadcasts is available, the key challenge is

"The biggest issue is not one of distribution or government regulations, it's at the end user - providing the means to view digital broadcasts," says Reza Jafari, vice-president of the entertainment and broadcasting division of Electronic Data Systems (EDS). "I can produce and distribute content digitally, but there is virtually no audience. The cost of digital TV reception has to come

down in price." Consumers would have to pay as much as \$6,000 for a digital TV or \$500 for a digital radio. These costs are far too high compared with analogue TVs that can cost as little as \$200. "These are tough economics to beat," points out Mr

The cost of digital TVs will come down in price as new chips are developed and as the manufacturing economies of scale begin to take effect. But there is an additional problem

in offering digital TV services that consumers want.

Clearer pictures are not enough to persuade consumers to pay more for digital TV price as new chips broadcasts. The goal is to be able to offer consumers a wide range of services. These could include custom TV programming, interactive TV, and ed choices of TV channels and programme

pilot projects testing various interactive TV services, conducted by leading TV cable and communications companies, but the tests have so far proved disappointing. Consumers taking part in the trials gave a mixed reception to the services offered and many said that they would not pay much more than they currently spent on cable TV and

"The problem with many of these trials is that they were too small, so that even if they were successful, it would be difficult to extrapolate those results to the general population," says Mr Jafari. "The trouble is that no one really knows what types of digital TV services consumers want."

There is also uncertainty over what the best transmission medium will be to deliver digital broadcasts. Fibre optic lines to homes would be the laying the lines is very high. Existing coaxiel cable-based cable TV lines offer a cheaper solution but presents some big technical challenges. Wireless broadcasting is a cheaper solution but, again, the challenge will be to customise services to the viewer.

The huge rise in the use of the Internet brings a further option. Although the bandwidth of the Internet is very small, over the next 10 years it will grow to accommodate large files, such as digital TV broadcasts, turning it into a viable distribution channel for digital broadcasts.

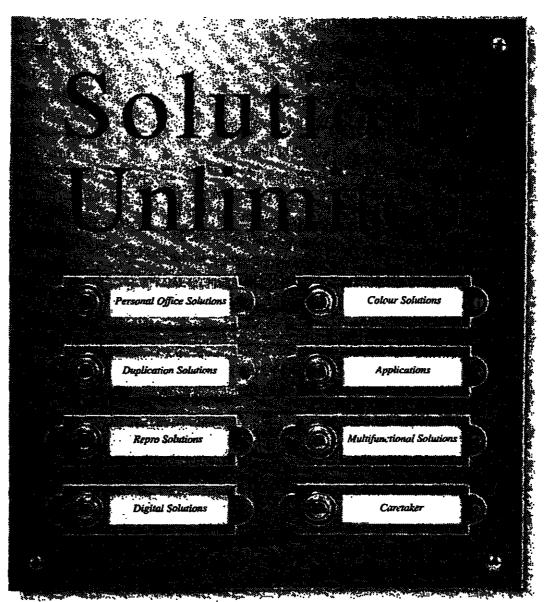
While the industry tries to solve the problem of digital broadcast reception, the use of digital production and distribution promises to cut costs and improve the production process. EDS is among several companies that offer hardware and software products for the production and management of digital video content which is then converted to analogue form for broadcast.

"It is often very difficult to find video clips and it can often be quicker to send out a TV crew to re-interview a person rather than search a library for the right clip. With digital content, it is much easier and quicker to find the right clip," says Mr Jafari.

Producers can also resell parts of their content to other producers, which will help bring down the overall costs of producing digital video con-

Tom Foremski

## Does this ring a bell?



For 25 years now, we are known as being Europe's problem solvers par excellence. Why? Mainly because we offer solutions to the increasingly sophisticated communication needs of the users and to often-heard questions such as the integration of office automation equipment... Our answers are straightforward, made to measure and make use of the latest in technology and components. With representations in virtually every country in Europe, Ricoh is now the undisputed pioneer in providing digital office solutions for office automation.

With the 21st century just around the corner and all the technological revolutions that it is set to bring, your business is facing new challenges. It is vital that now -more than ever- you can fall back on a reliable and experienced partner such as Ricoh.

See us at CeBIT Hannover, Hall 1 Stand 2K1

25 years firmly rooted in Europe

Ricoh Co. Ltd., 15-5 Minami Aoyama 1 - chome Minato-ku, Tokyo 107 - Japan. Tel.: +81 (0) 3.54.11.47.05 Fax: +81 (0) 3.34.03.15.78 Ricoh Europe B.V. Groenelaan 3, P.O. Box 114, 1180 AC Amstelveen, The Netherlands. Tel.: +31-(0)20-5474111 Fax: +31-(0)20-5474154 Ricoh UK Ltd., 1, Plane Tree Crescent Feltham, Middlesex TW13 7HG - United Kingdom, Tel.: +44 (0) 181, 261, 4000 Fax: +44 (0) 181, 261, 4004 Electronic publishing

## Challenge of the new systems

The worldwide publishing industry is now at the centre of a digital

publishing - such as CD-Roms, online services and the Internet - represent both a challenge and an opportunity for traditional publish-

Today, many encyclopedias and other reference works are available in CD-Rom format or online, academic studies and research papers are often published on the internet before they find their way into print and at last count at least 500 newspapers around the globe had established an Internet or online presence.

With about 50m CD-Rom drives installed worldwide by the end of last year - a figure projected to rise to more than 400m by the end of the decade - CD-Rom publishing is now a well established and profitable business model for both traditional publishers and database vendors.

CD-Rom publishers include print publishers of reference materials who have diversified such as Reed which already publishes back copies of New Scientist on CD-Rom and other publishers such as Spain's El Periodico newspaper group which produce CD-Roms containing news and information for local school use. Others which have embraced the CD Rom publishing market enthusiastically include consumer publishers such as Dorling Kindersley.

For example, in the wake of Microsoft's success with its interactive Encarta multimedia encyclopedia, most contemporary reference works and many older publications including the complete works of William Shakespeare - are now available in CD-Rom format, fully exploiting the large 600Mb capacity of the medium.

Other advantages include the powerful cross-referencing and search tools that can be used and the ability to incorporate music, sound and video along with text and graphics.

One of the problems of publishing contemporary reference works on CD-Rom is that. like their hard-bound counterparts, they date quickly. One possible solution is to build a "multiple media" product which links standalone software with the internet or an online service enabling the importation of

Dorling Kindersley is among those publishers experimenting with this approach and is currently werking on ways of integratmg Internet functionality into its CD-Rom's content and access to online "clubs" or bulletin boards, "Wo believe that 'hybrid media' and 'media packages' or 'multiple media' have a bright tature 'says Andrea Kirkby of Daiwa's institute of Rusearch.

Meanwhile, newspaper publishers are also beginning to face as to the implications of the new digital media world. Changing social habits and emerging new technologies mean that newspaper readerstab has been in decline for a number of years in the west - the total newspaper circula-

revolution, writes Paul Taylor ew delivery mecha-nisms in electronic one and two per cent a year one and two per cent a year

in Britain. Younger readers in particular seem to be turning to new media for their information and entertainment. As a result, the newspaper industry has been investing heavily in media media such as CD-Roms and Internet publishing. A year had some form of electronic edition but Steve Outing, new media consultant and author of the Online Newspaper

> newspaper products online within the next 18 months. Electronic publishing options for newspapers (see report, right, by Stephen McGookin), include the Internet. using a World Wide Web site, or a partnership with one of the large online ser-

Report for Jupiter Communi-

cations, estimates that there

could be as many as 2,000

vice providers. Knight-Ridder's San Jose Mercury News was among the pioneers in electronic newspapers with its Mercury Center web site whose content was designed to complement rather than substitute for its paper-based edition - hedging against the risk of cannibalising their

But despite the Mercury Center's success, a single blueprint for electronic newspaper publishing seems unlikely. Many other newspapers and magazines have chosen to publish the contents of their existing paper edition either partially or in its

Similarly, there is a lively debate over whether electronic newspapers should attempt to mimic the broadcast qual-ity and "browsibility" of their aper-based counterparts, or deliver a more targeted or personalised version of the news. The second approach has been championed by Nicholas Negroponte, director of the Media Lab at the Massachusetts Institute of Technology, who supports the concept of the 'Daily Me' where the reader pre-selects individual areas of interest to make up the content of their own personalised electronic "newspaper".

Meanwhile other publishers have been experimenting with different delivery systems although Knight-Ridder's so-called Tablet - or portable flat panel display concept - was abandoned last year. However, it is still early ers, most of whom have yet to work out what content their audiences want to consume electronically, what form of advertising content is appropriate to the new medium and how much con-

sumers will be willing to pay. What most analysis do agree upon, however, is that the new media is likely to complement rather than replace print, even though electronic publishing looks set to increase its share of the market over time. "Digitisation of content will not only allow enhanced interactivity. but will allow content to be shared between media," says

■ Electronic newspapers - By Stephen McGookin

## Publishers explore fresh online opportunities

About 800 newspapers are available online and more are being developed

Then San Francisco's two leading daily papers, the Examine and the Chronicle were shut down by strike action in 1994, their electronic offspring rap-

idly appeared on the Internet. The following year, when the streets, an online version of the paper was already available through a commercial ser-

The incredible growth in the number of home-based personal computers over the past decade and the increasing sophistication of online sernewspaper companies exploring more seriously - and not just as a defensive strate- the idea of electronic pub lishing.

The result is that there are now about 800 newspapers available online, with more in various stages of development. Steve Outing, new media consultant and author of the Online Newspaper Report for Jupiter Communications, has guessed that there could be as many as 2,000 newspaper products online within the next 18

months.

One point that Outing emphasises is that the landscape in this sector changes extremely rapidly, something that is apparent from the frequent additions to both Outing's site through Editor & magazine Publisher (www.mediainfo.com/edpub/ e-papers.home-page.html) and Eric Meyer's Newslink (www.newslink.org); which are collated listings and links to newspaper and magazine products around the world.

Over the past two decades, the idea of newspapers delivering their information products to the reader electronically rather than on paper has been frequently explored in one form or another - whether that be through a conventional screen-based model or by a more fanciful route such as Virtual Reality glasses.

Pioneering research at the Media Lab at the Massachussetts Institute of Technology, under Nicholas Negroponte, its director, has helped push the debate within the industry. envisioning such developments as the "Daily Me"; where the



reader specifies individual areas of interest that make up the content of his or her "newspaper". (See also the interview with Nicholas Negroponte on page two of this IT

The so-called Tablet - or portable flat panel - concept developed by Knight-Ridder's Roger Fidler was an attempt to marry reader-driven choice in content with greater reader freedom through a portable delivery system. was abandoned last year

Knight-Ridder although Fidler continues to develop the Tablet in his research at the University of Colorado.

### Database products

Commercial database products such as Lexis-Nexis. Dialog or the FT's own Profile service, provide searchable full-text versions of newspapers. but again, these are intended for the non-home user in a business environment, as their premium pricing attests. Web-based novelties such as

Dave Maher and Jeff Boulter's Crayon - Create Your Own Newspaper (http://cray-on.net) - allows the user to choose from a menu of categorised sources, then to compile the material into a menu of

Newspapers which decided to put themselves online basically had two options: they could publish on the Internet, or they could enter into a partnership arrangement with one 1994 has built a considerable

Rapidly becoming standard

■ CD-Rom systems - By Geoffrey Wheelwright

It is already very hard to find any new

his year is likely to be remembered as the one also predicts that the percentage of UK homes with CD-Rom-

desktop computer that does not

in which CD-Rom, the

data storage format based on

Compact Disc technology.

duces CD-Rom titles and

prepares CD-based training

materials for corporate clients.

there were more than 49m

CD-Rom drives installed world-

wide by the end of last year

- with that number predicted

to rise to more than 400m by

include a built-in CD-Rom facility

of the large commercial online Online, Prodigy, or Compu-Serve. They could, of course, do both, and many did.

Taking advantage of its hightech reader profile, Knight-Rid-der's San Jose Mercury News was among the pioneers in electronic newspapers. Its Mer-cury Center web site (www.sjmercury.com) was an example of how to produce lively, interesting content designed to attract the crucial regular readers who would provide the high number of "hits" advertisers were looking for. Not surprisingly, it soon moved from a free service to a subscription base.

The new medium also allowed publishers of hardcopy titles to extend their branding by producing parallel products which take on a life of their own - and not simply 'shovelware" editions contain ing the same, or less, content than the paper product.

One of the best such examples is HotWired (www.honoired.com), the Net version of magazine. More recently. The Guardian newspaper in the UK (http:// go2.guardian.co.uk) has developed a magazine-style web forwhich complements, rather than replaces, the hard opy product. The most successful online

newspaper in the UK has been Electronic Telegraph (www.telegraph.co.uk) which since its launch in November

causing many corporate com-

virtual readership, including a good many British expatriates. It recently introduced an online version of the popular Fantasy Football game - an example of how added value content can expand the paper's audience away from that traditionally associated with the

paper product.
Contestants pay a £10 (\$15)
fee to take part, having first
registered with the Electronic Telegraph access system and provided useful demographic information for the database marketing folks. According to Pippa Littler of the Telegraph. the paper has been "overwhelmed" by the response to the new online game.

Like all publishing ventures. the more you know your audience, the greater your chance

It seems likely, therefore, that newspaper publishers across the globe will spend the best part of the next year trying to find out whether their audiences want to consume their product electronically; how much they are prepared to invest in doing so - not necessartly in subscription fees but in time and participation - and whether advertisers can be persuaded to build on their initial encouraging interest in the interactive medium.

• Stephen McGookin will report on the latest developments in Electronic Newspapers in the A-Z of the Internet, an FT-IT magazine due to be oub lished next month.

■ CeBIT 96: trade fair preview

### 6,000 exhibitors head for Hanover

More than 6,000 exhibitors from 60 countries will be taking part in the largest-ever CeBIT show at Hanover, Germany - the annual office. information and telecommunications trade fair which takes place this year from March 14 to 20, writes Michael Wiltshire.

More than 1,500 exhibitors a record - will take part in IT categories which will fill seven large halls. In the network category,

there will be 450 exhibitors. many of them highlighted in special displays such as News Net 96, ATM World and the Networking Centre.

More than 2,000 exhibitors will be featured in the Software Centre. Other large

areas will focus on banking and financial systems, com-

puter-integrated manufactur ing and design, consulting and services, security equipment and card technology, plus a wide range of business and office systems. The event, which will be

Melajua fectuoi

open daily from Sam to 6pm; has also attracted a record number of UK exhibitors -323 compared with 266 at last year's event. "CeBIT is clearly the place to be this year if you are in the IT industry." says Mr Arnold Rustemeyer, general manager in the UK for the show organiser, Deutsche Messe. Last year's show attracted more than 755,000 visitors of

whom 100,000 were from out side Germany. For more details, telephone Hanover (0)511 893 80 11/12;

fax (0)511 893 80 03.

■ The electronic office

### Drowning in a sea of documents

Too much executive time is spent at the photocopier

ost offices today "are awash in sea of docu-ments - both digital and paper," says Russell Pea-cock, general manager of Rank Xerox office document prod-

Ten years ago, the average number of documents handled by a worker was less than 30 fax/print/copy pages a day. By the end of this year, it will be 70 a day (including digital documents) predicts Xerox. But Mr Peacock believes

so-called "knowledge workers" do not have adequate control over the three stages of document production: □ Document input - the cre-

ation, scanning or electronic capture of information. ☐ Document management the ability to store, retrieve,

summarise, share and manipulate content. □ Document ouput – local or distributed printing, copying, faxing and viewing.

In most offices, personal computer-users depend on an eclectic mix of devices, some of scanners - are not even on the network. So they spend time 'walking' documents from slow laser printers to faster copiers.

This creates bottlenecks in key processes and low productivity. To put it another way too much executive time is spent at the photocopier.

Xerox has a strategy for dealing with this. It has just launched two Document Centres which can be connected to networks. These enable users to print, fax or copy documents from a PC.

An added benefit is that users can deal with paper and digital information in an integrated way. For example, paper pages can be scanned into a Document Centre and combined with digital data to produce multiple copies of a finished, stapled report.

The Document Centre System 20 - for networks of 20 users - costs £13,660. The System 35 for groups of up to 50 costs £27,280.

Rank Xerox believes that the business of bringing office services to the desktop will be worth \$1bn by the year 2000.

### Integrated document management

The company is certainly not alone in believing that users want to be able to manage their documents in a more integrated way. Other suppliers are busy forming alliances, or taking over companies so that they can sell a wider range of products for the electronic office.

US-based image processing supplier. FileNet, has agreed to acquire Saros, a US company specialising in document management and Internet webserver software. Last year it acquired Watermark, which sells desktop image processing and workflow software. It has also entered into an agreement with network company Novell which integrates FileNet's workflow solutions with Novell's products.

Microsoft has an agreement with Wang, which enables it to give away Wang's ImageView image processing software with its latest version of the Windows operating system, Windows 95. This enables

Microsoft to gain entry into the image processing market and '> Wang to gain even more experience of desktop computing.

This is image processing for everyday work, without needing a large, centralised sys : 13 tem," says Roger Whitehead, 'L director of the Office Futures. % consultancy and editor of Workgroup Computing.

### Component software

Another trend in the electronic office is the move towards component software. Lotus, the software company'ff' owned by IBM, is the first large supplier to offer components! 51 (small parts) of its software applications via its Internet web site.

At present, these are only ? ?? available for users of Lotus Notes 4.0, a groupware and 🦣 conferencing application. But "other major suppliers, such as Novell and Microsoft will soon follow," says Whitehead. Wang's ImageView software can also be downloaded from the Web.

Enjoy it while it lasts: software suppliers are likely to offer component software free as an experiment, then start

As this component software example shows, no office is an "island" - and being able to exchange documents and software with the outside world electronically is also important. This facility should become easier as more deals combining software and telecoms companies - are struck. For example, Microsoft and US telecoms company MCI have agreed to market each others' services: MCI will distribute

### hotelling

mobiles, satellite networks, Internet e-mail and portable PCs, will anyone be working

Probably - a halfway house is "hot-desking", where users spend a lot of time out of the office but are allocated desks as and when they need them. Andersen Consulting - no stranger to the practice of "hot-desking" - is using what it calls "just-in-time hotelling" in its Paris offices.

When employees arrive, they check in by swiping a smart

lizards be warned: Andersen's launch information says the lounge "enables everyone to relax for short periods of time while waiting for a meeting, filling in a time-sheet - not everyone's idea of relaxation –

shorter hours.

limely.

The state of the s

consultants can book space in the office as if they were booking a hotel. There is even a first-class style lounge containing smaller workspaces, and comfortable couches for chatting with colleagues.

The lounge area does not have to be booked, but lounge

or picking up messages. Whatever the office of the future looks like, it won't mean

**Joia Shillingford** 

### the year 2000. The company Fast access to online services

Daiwa's Kirkby.

sations, will soon be offering content to consumers through

Rogers WAVE." Those who use the service need to have a minimum 486SX25 megaherta processor with SMB of RAM and a Super VGA mountor. Subscribers are then equipped with a cable modem, rental of which is included in the price of the service. The service also includes

a range of services Rogers Wave has assembled. These include Wave Web links to explore the Web for entertainment and learning, a facility that Rogers calls "Tidal Wave" Web links which give users access to specially-designed high-speed content such as Lifeline and the Life magagine's online publication - as well as electronic mail capabil-

If Rogers encounters no big stumbling blocks during this trial, the company will make the service available in a number of additional Canadian markets later this year with widespread access to the ser-

Through a consortium involving Rogers Cablesystems, Shaw Communications of Calgary, and Groupe VidTotron of Montreal, the cable service will be available nationally in Canada as Rogers partners Shaw and VidTotron

roll out their versions. Rogers is also making the Wave service available for schools in an initiative directed to students from kindergarten through to Grade 12.

Wave for Schools provides users with high-speed interactive access to a suite of content, including the Internet, industry Canada's Schoolnet. libraries and databases.

Future educational services will include online newspapers. magazines, museum databases,

and other information facili-Students will also be able to

participate in online lessons.

Finally, there is a Wave for Work service, offering a link

applications.

pany already operating an extensive telework programme, called Flexi-place, with 1,100 employees across Canada. working away from the office. Wave for Work provided employee access to a suite of information services and IBM computer applications available through IBM's Global Network, including services previously maccessible from home.

such as application-sharing

and interactive multimedia

The company is investing \$1.9m over three years to provide Wave for School to 600 schools in Ottawa, Etobicoke, Mississauga, Brampton, London, and Woodstock, Ontario. The service will be available free of charge for the first two

between corporate offices and staff working at home. For the technical trial, Rogers is working with IBM Canada, a com-Through a cable modem,

became the standard for These figures confirm what distributing commercial softmost in the computer industry already know: CD-Rom hardware and started to take off as ware is the fast-becoming stana way for corporate computer dard on all desktop personal users to archive their data. According to statistics from London-based First Information Group, a leading UK multimedia company that pro-

computers, and even many high-end portable notebook computers. In fact, it is already very hard to find any new desktop computer that does not include a built-in CD-Rom. Since software published on CD-Rom is much cheaper for software manufacturers to produce - the huge capacity of a CD-Rom means that manufacturers do not have to put dozens of floppy disks in each box on which to hold the software. and they can publish an electronic version of the manual instead of printing a large. bulky and expensive paper ver-

based PCs will grow from a

mere 2 per cept in 1994 to 32

per cent by the end of 1998.

preferred way of offering new software. Offering software on CD-Rom also cuts down on piracy, because it is extremely time-consuming to copy up to 600 Mb from a CD-Rom on to floppy disks - or the hard disk

of another computer.

sion - it is also becoming the

For users, software published on CD-Rom lets them get to work more quickly. There is no sitting in front of the computer constantly inserting new floppy disks while the software is being installed. Users installing new software from a CD-Rom typically just have to issue the necessary commands to set up the soft-

ware and can then have a cup

of tea while they wait - with-

out worrying that the com-

puter will be screaming for

attention every few minutes. In addition to its popularity as a distribution medium for commercial software, a new breed of affordable, recordable CD-Rom - known as CD-R - is

puter users to turn to CD-Rom as a fast and inexpensive way of backing up their vital corporate information. In the US, for example, CD-Rom recorders are available for less than \$1,000 and allow users to create CD-Rom discs that can be played on any standard CD-Rom drive – as well as play

standard CD-Rom discs from commercial vendors. For example, Pinnacle Micro (a pioneer in the CD-R business), introduced a new Recordable CD system in early January with a starting price of only \$995. Known as the Pinnacle RCD 5040, this system is distinguished not only by its low price; the performance is also superior to that of many previous CD-R systems - while it is a 2X CD recorder, it can read CD-Rom software at 4X (quad) speeds. The company expects the RCD 5040 to appeal to both the corporate and con-

he new RCD 5040 Recordable CD system replaces its predecessor, the RCD 5020 and comes in both internal and external

sumer markets for data archiv-

ing and making low-cost, cus-

Pinnacle suggests that it has a good shot at the traditional magnetic tape backup market by offering CD-R systems at this price with improved performance. For this reason, both Mac and PC versions include custom Backup Utilities which allow you to create permanent archives of data held on a hard disk. Pinnacle says the PC version, CD Archive, offers the only Microsoft Backup Compatible utility for backing up data to compact disc.

Not surprisingly, the com- and the whole CD-R market. "The CD-R market is exploding." said Scott Blum, executive vice-president of Pinnacle. "We are expecting sales to continue growing rapidly." He even predicts that CD-R systems will replace tape

drives and CD-Rom players in the near future.

Equally enthusiastic is Hew lett-Packard, which also launched a low-cost CD-R system last October. HP's entrant in the low-cost CD-R race is an internal DOS/Windows offering known as the HP SureStore CD-Writer 4020i and its recommended price is \$1,249 (although the company says its street price is about \$1,099).

Until the release of the new Pinnacle system, the SureStore CD-Writer 4020t was one of the few CD-R systems at anywhere near the \$1,000 mark that offered 4x CD reader and 2x CD recorder capabilities which installs in a PC's half-height 5.25-inch bay. As with most CD-R systems,

lets you record up to 650MB of data or 74 minutes of audio on a single CD-R disc. It also reads standard digital and audio CDs. And as with the Pinnacle system, HP included a collection of bundled applications to make the offer more attractive. The CD-Writer 40201 includes a utility called Easy-CD (an extension of the Windows file manager that works with the CD-R drive), another called Alchemy Personal (which is supposed to let you create and search custom databases and includes a runtime search engine for use on any PC with a CD-Rom drive). one known as Magic Lantern for photo CD viewing and finally something HP has dubbed Easy-CD audio, which lets you create your own custom audio discs.

The biggest attraction for any of these drives is that they offer tremendous value in terms of the cost per megabyte for long-term storage of data. In the US, the street price for blank CD-R disks has dropped pany is bullish on this product to \$12 or less. And when you consider that you can get 650 Mb for this price - or more, if you use compression technology to store the files - this is far cheaper than using 500 or more floppy disks or even the blank media for many tape

## and sell Microsoft Network, an

online service. Just-in-time

But with growing use of the office of the future?

card through an interactive station. They then know which room has been allocated to them and can be tracked down easily by reception staff. Once in their allocated room employees have access to Octel voice mail and Lotus Notes electronic maîl. Andersen Consulting says its pany unveiled a networking

strategy for printers and asso-

ciated products that it calls

"received printing". The idea is

that as documents are increas-

ingly being received in digital

format (for example, via corpo-

rate fax modems and network

fax gateways) and are being

distributed digitally (via elec-

tronic mail), there will be a

shift towards allowing users to

decide how and when (if at all)

those documents move from

For example, rather than the

cumbersome task of passing

around a company internal

memos and received faxes on

paper, the network would han-

dle the process digitally and

users would decide for them-

selves which documents they

wanted to print out - and

which devices they would use

In a speech at the annual

rated on the HP strategy.

to print them out.

computer screen to paper.

## ubitor<sub>s</sub>

3747 210 4 - ARCHU

lectronic office

Photocopiers,

in lo The state of the s Share and share sh Hat-way

ents

Liser friendly search facilities

stight level of system security

Miperates under Solaris v2.4 UNIX

Firstel part of FT Information Brworth Street, London, EC2A 4DL



## Hanover New era of integration dawns

Photocopiers, printers, scanners and fax machines will all live on the local area networ'

Document manage is now being to incomplete in personal computer local area networks (Lineaus of advance) "distribute and print" model copies and distribute model. ocument management

Document management - By Geoffrey Wheelwright

is now being tightly integrated with existing personal computer-based local area networks (Lans) by means of advanced office The clearest indication yet of this came late last year with

printed as multiple originals. announcements by Hewlett-Packard and Xerox Corporation, both of which pointed the way to a world where photocopiers, printers, scanners and fax machines will all live on the local area network to provide document management functions - and it will be network managers, rather than office equipment managers, who will be charged with maintaining and installing HP's announcements came document services to the deskfirst. In early October the com-

ument Centre System 35 (designed for up to 50 users on a network) and Xerox Document Centre System 20 (designed for up to 20 users on a network) machines really do is provide office equipment that is used, controlled and managed over the network.

These systems are likely to move responsibility for many forms of traditional office equipment from the office and office equipment manager to the network manager - as the performance and reliability of the network now become vital to the proper operation of this new generation of office equipment. In addition, it will be the network that will tell users and administrators alike whether a given machine needs toner, needs to have a different size of paper loaded or has run out of staples.

Fall Comdex trade show in Las Vegas, Richard C. (Dick) Watts, HP vice-president and general manager of the Personal Information Products Group, elabo-Mr Watts said that HP networked, but documents wanted to change the way dochaven't," he says. "Gains in uments were handled and he individual output and personal described what he called a new

exploding growth of new digifor paper management which would eliminate the older and inefficient print-multiple-The "distribute and print"

model allows network scanners to serve as efficient and versatile on-ramps to the information highway or network system. The idea is that when HP network printers are combined ogy often gets in the way, causwith HP network scanners, ing delays, bottlenecks and information can enter the network system easily - then be delivered electronically and

Xerox also took a similar line last October when it launched a family of digital document office systems that allow users of networked personal computers and work stations to perform new document production and distribution services from the desktop. The company says these systems are designed to create "a new category of office device that improves office productivity by bringing an array of advanced

But what the new Xerox Doc-

According to Paul Allaire, chairman and CEO of Xerox, there has been a problem in how the documents used in an office have been perceived. "Until now, offices have been productivity, expressed in the

tal documents from PCs, software and networks, have not translated into gains in the productivity of work groups. This is because a variety of incompatible user interfaces, formats, operating systems and network environments make distributing and sharing these documents difficult. Technol-

non-productive steps in people's work. It's a clear and pressing problem. He suggested that by making documents a network resource. much greater value can be gained from them. "There's a deeper issue - the work group where people work together creatively and collaboratively in teams is where the collective knowledge that typically creates business value is

shared, built and used." suggested Mr Allaire. "Energy which should go into the work itself - creating content and adding value to information ~ is diverted into

and bottlenecks and doing what people consider to be unproductive, mundane tasks. This is a root cause of lagging office productivity and mounting worker frustration." The Xerox solution is the

company's new Document Centre product. "We called it Document Centre because we believe it will be seen as a real centre of expertise and centre for services that knowledge workers can go to and depend on for managing the daily flood of inputs, outputs and processing tasks that characterise the cycling of documents and the cycling of knowledge work," said Mr Allaire.

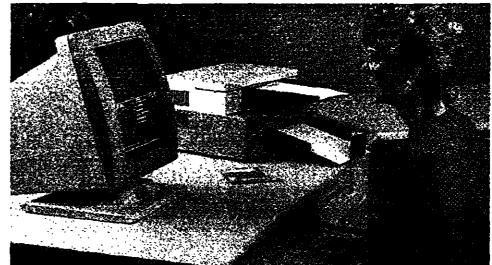
"At one level, Xerox Document Centre customers will be scanning, faxing, printing and copying - from anywhere in their worksnace. At another level, they will be using, gathering, building, creating and sharing the knowledge needed in their work. Until now, our

desktops have been connected electronically through networks. With Xerox networked document systems, the vision is we can connect our ideas through documents.

"With this new category of office document systems, we believe that many of the frustrations, delays and bottlenecks will gradually (ade into the background and more energy will be channeled into the creation and enhancement of content - the good work we call 'knowledge work.'

But the real question in offices around the world will be whether or not it actually solves any problems.

There may well be many advantages to be gained from an office where document distribution takes place principally over the network - but the teething experiences that a large number of corporations have had with the reliability and implementation of new network-based services could well colour their judgment in accepting the idea of technolo-



As office documents are increasingly received in digital format - for example, via corporate fax moderns and network fax gateways - and are being distributed digitally, via electronic mail, there will be a shift towards allowing users to decide how and when (if at all) those documents move from computer screen to paper

together. The key to the success of in whether or not it really does add up to more than the sum of its parts. That has so far been the downfall of most faxcopier-printer-scanner "multi-

whole bunch of services ment management services - they do not do any single function as well as the best this kind of technology will lie of their single-function counterparts. They also require that you commit yourself to a single device when some users are wary of having all their technological eggs in one basket.

date," says Mr Woods.

The good news for users is

that client-server software is

improving. The latest products

are providing better security

and performance monitoring.

In particular, more and more

suppliers are competing to

establish their middleware

products as the industry stan-

dard. "Good middleware

should make a complex distrib-

uted environment look like a

single machine even if it

includes Windows PCs, local

area networks, Unix systems

and mainframes," says Woods.

They are also easier to use.

gies that try and bundle a function" products and docu- After all, when your fax machine goes down, it does not usually take your printer. scanner and photocopier with it. But on a multi-function device it does. And on an networked multi-function device. used for document management, that could affect a lot of

■ Office computing: - report by Joia Shillingford

## Strong demand for client-server software

The latest products are providing better security and performance monitoring

arly client-server systems often served a single department, but now they are spreading throughout whole organisations. Companies are starting to base their whole computing environment on the clientserver model, where processing is shared between "client" PCs and more powerful "server" systems.

Citibank opted for a clientserver solution when it wanted to offer common funds transfer (FT) across Europe. It is using a combination of the Windows NT operating system (on servers and eventually on PCs) and Microsoft's SQL Server database as a starting point for

entering details of FT transactions, which are still processed on the mainframe. But key processes are gradually being moved off the mainframe and onto Compaq servers running SQL Server.

Company-wide client-server brings new management challenges. For example, IT managers must work out what data is required throughout the organisation and where it should best be stored to minimise network traffic. They must also work out how to integrate the company's older computers (such as mainframes) into the new environment. Another challenge is to

design a client-server system which is flexible enough to cope with changes in the com-pany's business. "Some clientserver systems are in danger of becoming legacy systems (systems that can't adapt)." says Eric Woods, a senior con-



sultant at researchers Ovum. Mr Woods believes that companies designing their own client-server development tools and middleware (software for and let vendors worry about

systems) are "crazv". "The complexity of clientserver means that you have to delegate some of these issues.

connectivity and staying up to

The six types of middleware □ Database connectivity prod-

ucts, such as those offered by Information Builders: ☐ Remote-Procedure-Call (RPC) based systems. RPC is one of the fundamental building blocks of middleware;

☐ Message-oriented middle-

ware, such as IBM's MQ Series; □ Object-request-brokers (Orbs). Choices include Microsoft's Ole (object linking and embedding) and Iona's Orbix. The Object Management Group is attempting to define an industry standard for Orbs:

☐ Distributed Computing Environment (DCE) based systems. DCE services (included with powerful systems from IBM, Digital Equipment etc) help to make several linked machines look like one. Products which simplify the process include Entera from Open Environments and Encina from IBM (based on a TP-Monitor); and ☐ Distributed Transaction Processing (TP) Monitors eg Tux-

Object-request-broker products are probably closest to

edo from Novell and CICs from

Continued on next page

## They are rate Data Test levice sound The Street Fire Tement

Snapshot Valuation Service - SVS

vs is a serier based product designed specifically for the needs of the lived manager requiring intractay valuations. The data pers a commencersive range of global financial instruments, sourced directly tream over 75 stock exchanges worldwide and specialised automation providers. Pricing information is manged and our consistent format and is output on a single nstridated information feed

Fast mapshot generation

napshire iser definable by coverage and tuning

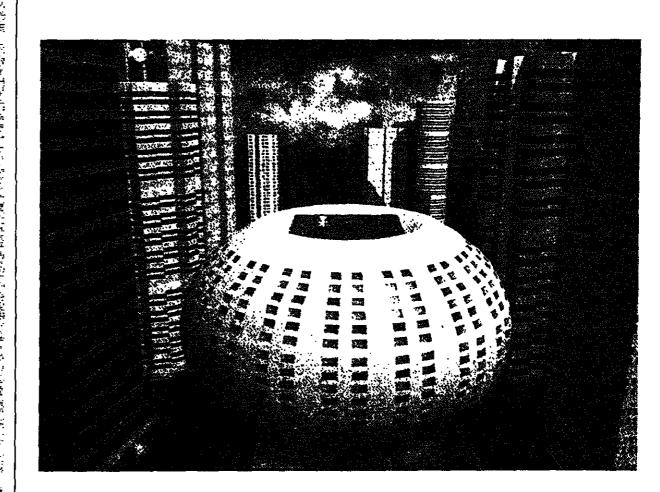
Autorosic surpshot triggers Apple Recommend GUI and X-Window interface

Real-time prices for up to 100,000 international securities

Variable code access

Sephisticated feed monitoring capabilities

For more information on SVS or a demonstration call Sarah Tilden on 0171 825 8365



### The days of the bloated business are over.

Ballooning costs. Bulging warehouses. Is your business growing in the wrong places? Let GE Information Services relieve some of the pressure.

We help you reduce swollen inventories and take the bulk out of your business, so you can be faster in your markets, more responsive to your customers and more attractive to your shareholders. We enabled a major electronics manufacturer to cut supplier cycle times from 6 days to 1 and slash warehouse space requirements by 50%. Another client has increased salesforce productivity, allowing salespeople to double the amount of "face time" they can spend with clients and prospects.

GE Information Services works with thousands of the world's best known businesses to help reduce costs and improve profitability. Our Business Productivity Solutions are can help you expand where you really want to-in your marketplace.

Productivity. It's All We Do.™



GE Information Services

For more information, please call 14300-560-GEIS, or write GE Information Services. MC07F3, 401 N. Washington St., Rockville, MD 20050. Find us on the Internet at http://www.geis.com.

ications systems, the VS3: a single monitor version costs £24,000 and £27,000 for

■ Mobile computing/remote access - By Michael Dempsey

## At home with the office

Getting mobile staff online via their notebooks justifies the cost of expensive state-of-the-art equipment

recent survey of 400 A notebook PC-users throughout the UK, Germany, France and Sweden revealed that most users still do not link their portable computer to the office network. A poll carried out on behalf

of PC-maker Dell by IDC, the research group, shows that less than half the companies in Europe using portable computers also support remote communications. This compares with 80 per cent of similar US companies linking notebooks to the office.

In the Dell-sponsored survey, 35 per cent of respondents said their notebooks were not connected to the office. Notebook users tended to take their machine home, working from there for an average of 515 hours a week. But only 30 per cent accessed office resources when working from home. Because Dell makes note-

book PCs. it has an obvious interest in encouraging their use among the working population - and the company uses an attractive argument to encourage remote access: getting mobile staff online via their notebooks not only increases personal productivity, it also justifies the cost of state-of-the-art expensive equipment.

Dell claims that an aggressive attitude to remote communications means the return on investment can occur before half the depreciation period has gone by.

One company that has taken this message to heart is clothing rental giant Sketchley Textile Services. With a £55m turnover and 1.800 employees. Sketchley keeps a significant

■ Cellular telephony - By Joia Shillingford

Alistair McCrae: his staff at Sketchley use laptop PCs to help maintain wearer records" on the company's 650,000 end-users

outfit?"

portion of British industry in clean work garments. Some 650,000 people, working for companies as big as Ford and British Aerospace, wear overalls and uniforms issued by Sketchley. These clothes are rented by the customer, with Sketchley undertaking to replace worn-out items and keep up with the employee's

It is an enormous task which used to be carried out by a field force who were equipped with paper forms and who had to key in data when they returned to their offices.

Sketchley has 30,000 business customers who can send rented garments to any one of seven regional centres - and the company then has to return each garment back to the person who wears it. Field staff armed with Compaq laptop PCs are the key to maintaining this service. Alistair McCrae, sales and

services director at Sketchley, explains that personal contact is the only way to match the company's product with the continually shifting profile of customer employees. "We have to keep making inquiries to know that the contract is meeting expectations. You have to talk to the people you're clothing. Are they getting fatter or thinner? Have they changed jobs and do they need a new

wearer records on every one of its 650,000 end-users. The records detail the name of the staff member and give individual outfit size and type and they also note how often a garment is changed. In the food industry, hygiene requirements mean that this will be every day. Garments are turned around in one week, and Sketchley receives 10,000 requests to alter garments

ll this data is held on a large Digital Vax mainframe computer. But this machine is fuelled by regular input from the field force. The key 'data window' at Sketchley lasts six hours and begins at 10pm every Sunday. Field staff plug their laptop into a home modem line by 10pm and during the next six hours the laptops are polled by the mainframe operation.

Development software from Cognos, costing £250 for each laptop used by the 30-strong field force, allowed Sketchley's data processing manager George Donnelly to design a

data downloading regime that was compatible with the group's mainframe.

The total cost of moving from paper to a laptopequipped mobile workforce came to about £80,000, but McCrae says this is money well spent, citing the competitive nature of the commercial garments business.

Sketchley has a £4m programme to issue all 125,000 employees of J. Sainsbury, the UK food retail chain, with an entirely new uniform. The shift from a familiar orange outfit to the new blue uniform was a big exercise in product branding. There cannot be any delays in such a huge marketing exercise.

Sketchley relied on the laptops to gather and transmit relevant data on the client's workforce and the reclothing of Sainsbury took 21 months. With 23 years at Sketchley and a long time in the field writing down measurements on paper. Mr McCrae has no doubts that remote access is the only way ahead ~ "we're in a highly dynamic business. We need to change as the customers

The US has led the way with remote access but, as Sketchley illustrates, Europeans are catching up. Symantec, a \$750m software house, sells PC Anywhere. This £149 package allows portable PC users to dial in from an outside location and replicate the facilities of an office machine on their lapton screen. So a technicallyoutdated machine can call up software running on the latest Pentium workstation.

Symantec claims a million users for this product: 70 per cent of them in the US. However, the company believes that a change is under way; Scandinavian companies, faced with staff distributed over remote and difficult terrain, are signing up for PC Anywhere. As company accountants demand better utilisation of expensive portable PCs.

nology "is about to hit the big time." It put the annual growth rate across Europe at more 40 per cent. A UK survey by Computer Intelligence for network equipment vendor Eicon Technology, found that 78 per cent of technology managers expected

their use of ISDN to increase Yankee Group says that promotion by the public network operators, especially in Germany, the advance of the Euro-ISDN standard, a boom in software applications and rising demand for access to the Inter-

work is becoming popular because it gives faster and

clearer connections than the

old analog network. Businesses

appreciate it either because it

is cheaper than the alternative

methods of communication or

because it enables them to do

things they could not do before

- or both. In some cases, ISDN

may represent a significant

major influence on the infor-

mation technology of the

future," says June Campbell,

ISDN business development

manager for BT, the UK's larg-

While ISDN is a 1970s' con-

entation, a European study

cept that met with slow imple-

by the Yankee Group Europe

last year concluded the tech-

est ISDN operator.

'It will undoubtedly be a

mpetitive advantage.

the growth. In the past couple of years, ISDN many retailers for routine

Cordless

net were the main causes of



Fast digital phone links deliver voice, pictures and even videoconferencing, writes George Black

credit card validation. They also increasingly use ISDN this year are intended to lines for polling their branches to gather sales figures. Some have replaced modems by ISDN, though modems are becoming faster and cheaper and cannot yet be written off.

Virtually every sector of the economy has taken up ISDN. ranging from manufacturers transmitting design drawings to hospitals remotely accessing X-rays, to colleges introducing distance-learning programmes Recently, ISDN has extended its customer base from large companies to medium-sized

Design companies use it to pass their artwork to advertising and public relations agencies and their customers for comment before sending it, again via ISDN, to the printers.

and small businesses.

Benefits

These companies often like to conduct videoconferencing over ISDN, so that they can discuss their work face-to-face with their customers.

Many people in these types of small business are now teleworkers, who could benefit from remote access to their customers' local area networks. BT wants to target them as potential ISDN customers, but this calls for an improvement in the network's

increase that coverage to virtually everyone in the country who might subscribe to ISDN. If these tests succeed, BT may launch a marketing campaign aimed at teleworkers

BT's trials of new equipment

The spread of ISDN has been boosted by the forging of international standards. As Euro-ISDN has gained in credibility, certain countries outside Europe, such as South Africa and Israel, have recently moved towards adopting it. In the US, too, there has been growing interest from regional phone companies, international connections can still cause problems, but these are gradually reducing.

Standardisation is expected to force equipment prices down. Euro-ISDN clearly demonstrates the virtues of the sin-

ISDN products in 15 countries at once, though there are still extra tests to be undertaken in some countries before equipment can be connected to the public network.

Racal's senior marketing manager Colin Watts says the advance of Euro-ISDN is "an enormous step forward". However, a few doubts still cloud ISDN's prospects; one issue is how it will relate to ATM Mode), a networking standard

Wireless computing/office telecoms - By Joia Shillingford

which has technically much in common with ISDN and is also being hailed as an essential feature of converging technolo-Experts remain unsure about

what will be the relationship between broadband ISDN, the newest version of the system. and ATM. The present signs are that they will be comple mentary, rather than competi-Large networks may well

have ATM backbones and ISDN spokes," says BT's June Campbell. ATM's advantage will be its power, whereas ISDN's strength will lie in its flexibility, in her view. Another problem is that

many users do not understand how to instal ISDN most effectively, Racal's Colin Watts says there is still a need for an educative process.

prices for ISDN than some of its European counterparts. Equipment vendors have urged it to change this, arguing that BT's costs for installing ISDN have fallen, so its customers' bilis should also fail. But BT responds that it is constrained by the regulator Oftel, which frowns on cross-subsidies from one husiness area to another.

Cable television companies now offer ISDN, which may reduce its charges

## Racal-Datacom of the UK the role of BT, which mainwas able to introduce Euro stains considerably higher ISDN products in 15 countries. escape from

The state of the s

### Mobile telecom services seek ways to add value

Orange will soon introduce a 'Mystic Meg' astrology line and

a sportsline n 20 years' time, mobile voice calls will be virtually Lfree and suppliers will make their money from value-added services (VAS).

The services offered by PCN (Personal Communications Network) operators such as Orange and One-2-One, and GSM (Global System for Mobile) operators such as Vedafone and Cellnet are not that different. This is because PCN is simply a variant of the GSM digital standard.

The main difference is in which services they charge for and how hard they promote

The most popular VAS of all

is voice mail. Vodafone says it has 550,000 subscribers for its Recall voice mail service. And at soon-to-be-floated Orange, voice mail and Calling Line Identity (which flags up the caller's number) are the most popular value-added services. Hubert Tardieu, head of Sema's telecoms business, says: "Mobile network operators like voice mail because it generates extra revenue without them having to charge more. Most operators provide

There is also a growing number of information services available to mobile users. Vodafone is about to introduce a share information service,

free voice mail, but carn more

when subscribers phone back

the people who have left them

Mystic Meg line (astrology) and a Sportsline. useful fixed-line numbers for Interflora, Ticket Master, AA

Short message service

rather like paging and allows alphanumeric messages of up to 160 characters to be sent to a GSM mobile's LCD. Short messages can also be sent from a GSM handset by pressing certain keys repeatedly, for example one press equals a, two

A phone such as the Nokia 2110 costs £100 from Vodacall. The user will also need to buy an extra kit costing £49.95 that includes a cable and software. The cable plugs into the phone: the card at the bottom end of the cable plugs into the Psion. Sending short messages from

Orange will soon introduce a

Mercury One-2-One's smartservices and so on.

There are also a growing number of mobile data services. These fall into three categorles according to David Danieli, a spokesman for Voda-

This facility - SMS - is presses equals b and so on.

If this sounds cumbersome. short messages can also be sent from a Psion 3a Organiser linked to a suitable phone (a Nokia 2110 Orbitel 945 or Philins 747) and Vodafone's GSM

a Psion is easier than from a mobile handset because it has a full (though not full-sized)

which will display prices on a month exclusive agreement mobile's liquid crystal display with Vodafone, but other organiser suppliers, such as Texas Instruments, Sharp and Hewlett-Packard will soon bring products to market based on a similar concept.

> PC. SMS is cheap at 10 pence a message and it is possible to get an SMS-only tariff. There are roaming agreements allowing interoperability between Vodafone and some other European GSM operators. Or between Cellnet and other

operators However, there is no SMS interworking agreement between Vodafone and Cellnet, according to Danieli. So a Vodafone user cannot send a short message to a Cellnet

In addition to SMS, GSM mobile users who travel with a portable computer can buy a kit to link portable and phone. Again, they will need to use a phone designed for data such as the Nokia 2110. They will then be able to use the portable to send and receive electronic mail, access databases

or send faxes. Among PCN users, Orange customers have access to mobile data. One2One users will get data services later this year (as well as CLI and inter-

national roaming). However, one drawback of sending data over cellular is that data transmission speeds are not particularly high: speeds of up 9,600 bits per second are typical. On the plus side, mobile data is far more convenient than trying to hook up a modem to the hotel

Most of the new value-added

services are being offered for digital networks, which are harder to clone or bug, and better for data. However, new security features are being introduced to prevent cloning on analogue networks.

On April 1. Vodatone will issue its analogue subscribers (it has analogue and GSM networks) with a special Personal Identification Number. This must be typed into the handset and thereafter it will generate a series of random security

This means that even if a would-be phone cloner could crack the code, by the time he/ she had done so, it would prob-

ably have changed.
The authentication feature will work only on handsets designed to accept authentication (usually manufactured after May 1993). These are owned by about half of Vodafone's two million analogue

subscribers. As many as several thousand might prove faulty and, if so, will be replaced free of charge by Vodafone. Other Vodafone analogue subscribers will either need to buy a new phone (with built-in authentication PIN), or transfer to a GSM ser-

To find out their new PIN. customers need to contact Vodafone's authentication centre, or their service provider.

Future

The future promises all sorts of exciting value-added services for mobiles. Mr Tardieu thinks digital mobiles (with SIM - subscriber identity module - smart cards) could be used as payment devices in a

He says it is possible to include all sorts of information that identifies the user in the smart card, which could also have credit/debit card features

In the UK, smart cards are not widely used in banking, but Mr Tardieu says a leading British bank is testing a mobile smart card/credit card combi-

rescue centre.

"Such services won't happen immediately, but when they do they will really add value for the mobile user," says Mr TarWindow on a wireless future

extensions are some success with CT2. three times as expensive as standard corded

Media mogul Rupert Murdoch helieves that we are moving to a wireless world and - with MCI, the long-distance phone company - has bought a US satellite TV network to prove it. The plan is to use this, not just for television, but also to give businesses and consumers high-speed access to data

services, such as the Internet. Part of the impetus for wireless office services comes from users' experience of mobile telephony. They are starting to want the same convenience

and flexibility inside the office as they get outside. But, as with mobile telephony, wire-free solutions for the office tend to come at a premium.

Cordless phones

The cordless PBX (switchboard) market increased in 1995, showing that some users are willing to pay a premium for cordless functionality, says Diane Trivett, an industry analyst at Dataquest - "but to realise full market potential, the price needs to fall further

Cordless extensions are tbree times as expensive as standard corded ones. But they can help to improve customer service because it is easier for callers to track down the person they want. If fewer calls are missed, the organisation will also spend less money calling people

There are two standards for cordless office phones: DECT (Digital Cordless Telephony) and CT2 (the digital technology behind the former Rabbit telepoint network). Most see DECT as the cordless office

standard of the future, but Northern Telecom has had

Dual-mode handsets are also being developed. These are cordless phones, working to the DECT standard, in the office; and mobile phones. working to the Global System for Mobile [GSM] standard, outside it.

Val Simpson, product marketing manager at GPT Communication Systems, believes that "the future of mobile telephony for businesses has to be dual handset working".

the cordless PBX (CPBX) market are the introduction of new products, improved distribution strategies and falling In the early days, users had

only a few CPBX suppliers to choose from: Nortel, GPT and Ericsson. Now most of the traditional PBX suppliers are in the market. They include: Alcatel, Ascom, AT&T, DeTeWe, Matra, Peacock, Philips and Siemens.

products from existing players such as Siemens, Matra and

that the European digital CPBX market will grow by 500 per cent from \$115m in 1994 to \$716m. In terms of shipments, the market will increase from 4,500 systems and 82,000 cordless handsets to 62,625 systems with 1.9m handsets. DECT is expected account for 85 per cent of the market in terms of system

shipments, leaving CT2 with just 15 per cent. But these take-up levels will only be achieved if the price differential between cordless and fixed systems falls even further. Another premium-

wireless local area network (Lan). Computer suppliers such as AT&T and Digital Equipment are still very much in favour of wireless Lans and believe that they will be a

At present, key drivers for

Vendors, such as Mitel and Multitone, act as value-added resellers for others' systems. More new entrants are expected in 1996, including Panasonic, Hagenuk and Bosch Telecom, together with new

Ascom. By 1999, Dataquest predicts

growth area in future. This has yet to happen. Mark Purdom, a research analyst at Dataquest, says that most wireless Lans cost three or four times more than a wired Lan, are less standar-

dised, and operate at less than



Rupert Murdoch: making plans for a wireless world

10 megabits (Mbps) per second, (the standard for wired Lans). A typical wireless Lan costs between \$800 and \$1,600

wireless environment contain radio interface cards and antennae that send a signal to the nearest base station. A series of base stations (usually mounted on the cell-

or transmit it to a central computer. Most wireless Lans use

per user.

Computers or cash tills in a

ing) provides a backbone network that links all the devices together, enabling them to send and receive information

radio frequencies to exchange

information. But other technologies such as infra-red (a beam of red light) and microwave (high frequency radio waves) can also be used.

Some wireless Lans, such as that offered by Digital Equipment, allow seamless roaming for users with portable computers or organisers.

This is useful in a retail environment, where portable devices are used for stocktak-

Wireless Lans offer a num ber of benefits. They can be installed in listed buildings. which are hard to cable. They are flexible, so it is easy to add new personal computers or put extra wireless cash tills on the shop floor during busy periods. Wireless Lans, are also quick to install and can cut costs if PCs or POS (pointof-sale) terminals are moved frequently.

Mr Purdom says the advantages offered by wireless Lans "have given them some success in niche markets, but they haven't yet found a winning horizontal application. Until they do, they will remain a minor product area" For a minor product area there are plenty of suppliers: about 25 worldwide.

Among them are 3Com NCR, Norand, Olivetti (which has developed 10 Mbps-a-second wireless extensions for Asynchronous Transfer Mode networks), Telxon, Proxim Siemens Nixdorf, Symbol.

Photonics and Motorola. Most of the world's leading computer vendors sell wire less Lans, often made by other

The Yankee Group, a USbased research consultancy, believes that the Wireless Lan market will be worth \$1.107.2m by 1998, with \$725m of this coming from vertical applications, such as retail medical, warehousing and dis-

Strong demand for client-server software

Continued from previous page

what users want but furthestfrom full realisation. They canmake different software applications behave us if they were one. The idea is that each block of code retrieved by the Orb contains not only data, but the instructions to process it.

"But in the end, users don't really care what the underlying technology is, they just want the environment simplified so that it can answer business needs," says Mr Woods. As well as middleware, com-

panies need client-server tools

to build applications. Popular

tools include Microsoft's Visual

Basic and, for larger networks,

established, there are many more ready-made software

Forte from Forte Technologies. "The tools used in early client-server networks, such as Powerbuilder and Visual Basic, do not have the capabilities to support large, complex development environments," says Mr Woods. "People should be looking for tools that hide complexity but give greater flexi-bility." However, as clientserver systems become more

applications to choose from.

R/3, a financial package from

SAP has sold well. Other cli-

ent-server based applications

offering finance and other key

business (unctions include CS/

3 from Tetra and SmartStream

from Dun & Bradstreet Soft-

the next two years. Many client-server networks are based on so-called "fat" clients: usually PCs with a lot of local software and memory. But the notion of using Internet Web technology to link dissimilar company systems is taking hold. For certain applications, "thin" clients which simply view information on

doing the job.

ware. Benefits such as low upfront costs and fast applications development are helping to drive the client-server market. According to a Tetra/Computer Weekly survey, 58 per cent of companies interviewed plan to move to client-server in

remote systems, can be one of the most effective ways of

Mr Tardieu says: "The ability to pinpoint the location of a mobile user could also be used to good advantage by emergency services and others." For example, if a mobile user phones 999 or the AA, the call could be transferred straight to the nearest police station or

XV

MARCH 6 1996

commerce

are

The same of the sa

Aller of the section of

Addition to the same

Action 1997

and the second s

the remarks to

Serve Services and Services

All the second to the

STATE OF STA

\$ 165 12 to the best

The land of the land

sich " - - Tick

Arrago et tre 🚐

kills or continues

and the or the T

CAS Disult 1-755

THE REAL PROPERTY.

200 Mars 1 1 - 2013 (Mars

no all transition

A STATE OF THE STA

Section 1. In the Enter

er ha ... . talen.

a tal in shi<u>ss</u>

Service of the state of the sta

e decision in C

20.755

, ~,

market m

\$2,000 To 1

to be

## Security: a crucial issue

Dean Adams examines the defaults are enforced by the standards, for system installation, startup and restart.

defaults are enforced by the standards, for system installation, startup and restart.

access. (having followed the due legal process). Public keys should not be held by client-server environment

There is a widespread perception in the computer industry that the mainframe is 'safer' than the clientserver environment. This is a misleading assumption Both environments suffer, in equal measure, from the biggest threat to an organisation's security - internal attacks on the system. Computers are still operated by humans and humans are still prone to error and, in a few cases, malicious intent

In short, distributed computing is no more inherently weak than mainframe computing. External threats, though a real problem, are generally responsible for fewer losses than those that are internal to the organisation. In the distributed world, problems arise because distributed systems may be more complex and therefore harder to manage.

The level of security features incorporated in hardware and software productions is dependent on what each individual vendor decides. This causes problems of portability and interoperability for the customer, leading to what amounts to proprietary lock-in.

An organisation which is currently helping to solve these issues is X/Open. An independent and non-commercial body, its membership comprises vendors and users who are intimately involved in the development and piecing together of standards for practical use in the commercial marketplace.

X/Open is developing, with its members. a set of de facto security standards for the computing industry. These will aim to set and enforce a new superior level of security capabilities for distributed systems. The standards will be known as the X/ Open Security Brands and be to the computing industry what the kitemark is to the consumer industry.

The brand will bring benefits to both vendors and users. Vendors will be able to demonstrate significantly improved security capabilities without incurring the extra costs of undertaking security evaluations, Users will get peace of mind as well as lower costs. Lower costs will result from not having to pay the extra premium for security features as the X/Open brand becomes an industry standard.

Additionally, there will be fewer damaging and costly incidents likely to occur from inadvertent user errors or due to

X/Open is creating detailed standards that can deal with the distributed computing environment. These are in the following areas: secure communications, cryptographic systems, distributed auditing and single sign-on.

Encryption is a necessary supporting technology for secure communications. In the nascent world of electronic commerce. proper encryption will be the deciding factor in its success. However, encryption is a contentious subject: indeed, governments are restricting the import and export of encryption and in some cases, the use of any form of encryption. This may smack of Big Brother, but the thought of criminal organisations being able to carry on their activities completely undetected by law



Dean Adams: 'Encryption is necessary'

enforcement agencies is a worrying one. However, these issues need to be resolved if business is to be able to take advantage of the enormous opportunities offered by electronic commerce.

Work is going on to resolve those issues and to define standards that will provide practical solutions for the commercial marketplace. For instance, it may be possible to define an electronic warrant that would enable law enforcement agencies. (subject to due process of law) to obtain access to encrypted information where they suspect wrongdoing.

X/Open is in favour of allowing business to use strong encryption to protect its assets and its communications. However, if provision is not made for law enforcement to continue in a practical manner, the restrictions on import/export and use of cryptography are likely to continue. Therefore, X/Open is examining mechaoperation by non-skilled staff because safe uisms to allow for law enforcement agency

cess). Public keys should not be held by anyone accept the owner.

The development of standards for the Public Key cryptographic mechanisms is also high on the agenda. The idea behind this cryptography is ingenious but simple: anyone can encrypt a message but only the receiver can decode the message.

Two keys are created: a private key and a public key. These are created as a pair. by a complex mathematical algorithm. The sender must encrypt its message with the "public" key of the receiver. The receiver decodes the encrypted message with "private" key.

Only the receiver knows the identity of the private key, which is individual to the

X/Open is developing a Single Sign-On standard, whereby users log on once only. Currently, the practice of dedicating a password for each computer system that a user requires access to results in too many passwords for individuals to remember as they move around departments.

The growing rise of the Internet adds an extra dimension to security within a distributed systems environment. The internet provides very little in the way of support for secure communications, but stronger mechanisms are on the way, and within two years communication will be safer on the Internet.

Firewalls provide much-needed security protection that otherwise would not be available to users of system connected to the Internet. However, even when things become safer, direct access to the Internet should be limited to a few machines on the corporate network, if not just the one.

Forcing all communications to go through a single firewall point-of-entry ensures that these communications have to pass through a stringently and tightlymanaged system. Organisations risk, once again, human error to prevail if individuals are obliged to manage their individual

Eventually, organisations will come to rely on standards that have been developed in an open forum. In these types of forums, vendors and users try to break the emerging standards. In true Darwinian theory, the standard that remains unbroken gets the X/Open brand. As the distributed systems environment evolves, the resulting changes will be reflected in the standards giving the user peace of mind. giving organisations continuing peace of

□ The writer, Dean Adams is portability

■ Linking the systems - By Michael Dempsey

### A grand, global strategy

Novell, the software company, has an ambitious plan to expand way beyond the horizons of computer networking

etworking computers together is an accepted way of boosting employee performance, but when networks proliferate, or grow from the domestic local area network (Lan) into international corporate communications webs, then management becomes an issue. Novell is a \$2bn company Network

that has been dedicated to networking since 1983. Novell's success has made it the number two software company in the world after Microsoft. The fact that its name is nowhere near as well-known as Microsoft is testimony to the submerged nature of networking software.

Novell claims 50m users worldwide, and is employed in 88 per cent of Fortune 1000 companies. But it is a fair bet that many of those users never give a thought to the identity of their network supplier.

Some companies would be alarmed at this state of affairs, but Novell has come to terms with the fact that most IT users prefer to get on with the task in hand and ignore the technology that enables them to do it. The IT product that gets used is the one that takes up the least time to master. Now Novell has an ambitious plan to expand this principle way beyond the horizons of computer networking.

The Smart Global Network, or SGN, is Novell's grand strategy for linking up an enormous number of potential sites. The key to the SGN is the notion of intelligent devices; any object that contains a microprocessor.

Currently there are 10 microprocessors installed in assorted pieces of domestic and commercial equipment for every one inside a PC. By the end of this decade, that proportion will have become 50 to one. The SGN should exploit the untapped potential of these devices, activating the embedded intelligence in thousands of different pieces of equipment. One simple log-on procedure should suffice for



As companies become increasingly dependent on networks, the skills to manage them become critical. Here and on the following pages, FT correspondents

examine key issues

Management

users the world over, using PIN numbers to address their own PC and linked devices. Novell foresees a world in which individual vending machines will send a messag down the line to inform the catering contractor that stock is running low. If the SGN pans out as its authors hope, individuals will be able to send messages from anywhere on the planet.

This network will encompass mobile phones, fax machines and gas meters. For the individual it means getting in touch with home electronics via a mobile phone. For corporates, the SGN could reduce reliance on field staff. Utility companies could read gas and electricity meters from a central location without sending employees to check customer consumption.

Bearing in mind the breadth of its application, Novell believes the SGN could create a global web with Ibn connections. No one company could possibly put such an electronic empire in place and so Novell is relying on a series of mutually beneficial alliances

Bonex's NB-500/I notebook changes all that. Even the basic specification of the

NB-500/I offers PCI Pentium power and a colour screen. And its modular design means

that despite its small size and light weight, users benefit from a wide range of alternative

configurations, including an optional CD-ROM drive. This Notebook has been designed to beat the best in the world, matching the versatility and processing speed of much

ers and telecoms providers to spread the SGN gospel.

A software toolkit, Netware Embedded Systems (Nest), has been bought by 75 commercial organisations including fax manufacturers Ricoh and Canon and Andover Controls of the US. Nest costs \$50,000 and opens the microprocessors embedded in users' products to the SGN.

Netware Connect Services (NCS) gives PTTs the right to offer SGN services. While licence charges to a PTT might amount to millions of dollars over several years, the potential payback is huge. The national PTTs of Australia. Japan, Germany and France have signed up for NCS, hoping to offer new services at higher tariffs. These premium services will exploit the combination of SGN and fibre optic cabling to deliver better quality data transmission.

When infrastructure invest-ment is included, the cost of implementing SGN could run into tens of billions of dollars. But the move to fibre optic cables is going to take place in



Novell President and CEO Robert J. Frankenberg; the company claims 50m users worldwide

any case, so Novell's SGN is hitching a ride on an industry

trend. NCS has also been bought by US communications giant AT&T, and looks like pruning

the bills of many large corpo-

with electronics manufactur- rates faced with managing international voice and data networks operating over leased lines. By switching to the SGN world and employing NCS, a company could design its own native network and then effectively outsource the management of that network to a PTT. An important technical responsibility would have been offloaded while the corporate user retained what-

> sary for its own operations. The SGN will not wipe out network management as an issue. But it will allow companies to regain control of their data communications assets.

ever features it deemed neces-

Adrian Holcombe is UK director of network services at Ascom Timeplex, a \$300m Swiss-owned maker of net working hardware. Mr Holcombe believes that too many commercial networks are proving unreliable and failing to carry transmissions because the users do not

engage in strategic thinking. Capacity planning and analysis of traffic levels would allow the IT department to deliver a more reliable service," Mr Holcombe says, "but people are often preoccupied with finding a physical fault and fixing it."

Bay Networks is a \$2.2bn US networking hardware and software group that is developing products to operate within the SGN. Steve Jenkins, UK managing director, believes that network management is about to become a lot easier. "Our goal is to take the complexity out of networking," he says. He shares a common opinion that the Internet is too chaotic for business users. "Novell's SGN will be like a professional Internet." he says.

The era of smart devices blipping signals across the globe is still some time off. But by the time Novell hits that one billion connections landmark, the headaches of logging into a system and the perils of keeping commercial traffic running smoothly just might be a thing of the past.

### PC manufacturers struggle to escape from the bedroom

Most home PC owners keep their machines in the bedroom, the study or a spare room

ome computing has emerged as one of the key trends in key trends in the 1990s. Having transformed business and the workplace, "the personal computer is now revolutionising access to information and communications in the home," notes Olivetti, the Ralian technology group.

In the US, where computer usage is particularly advanced, 35 per cent of homes own a PC and 16 per cent of households with a multimedia PC have bought a second machine for their children.

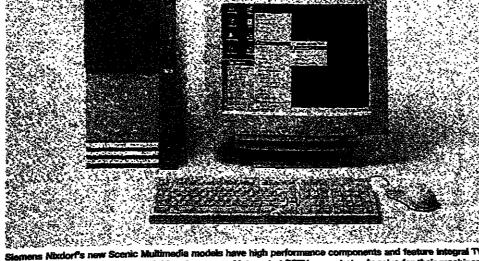
In Europe, spending on PCs overtook television spending in the UK and Germany in 1994. Sales of Multimedia PCs this year are expected to account for almost half of overall home PC sales.

But despite the success of multimedia personal computers designed for home use over the past 18 months, PC manufacturers have still found it difficult to move their products out of the bedroom or study and into the living room. In Britain, a survey prepared for Packard Bell last summer confirmed that while the home computer is part of family life for about a fifth of UK households, it is usually kept apart from the TV, stereo and other home entertainment equip-

Most home PC owners keep their machines in the bedroom (22 per cent), the study (20 per cent) or a spare room (17 per cent). Only 15 per cent keep their computer in the living room which despite the supposed convergence of consomer electronics and computing, remains the domain of the television set and stereo system. Surveys elsewhere paint a similar picture.

.. In an effort to overcome this segregation and build a broader base for their machines, some manufacturers have focused on building home PCs which combine most if not all the features of multimedia PC, television and hi-fi system. Several approaches have

been tried. The most popular, adopted by companies such as Compag, Packard Bell and Apple Computer, has been to build multimedia machines complete with CD-Rom drives, stereo sound cards and television tuner cards capable of receiving and displaying televi-vetti's innovative Envision



and audio capabilities as standard. Manufacturers of integrated PCTVs report steady sales for their machines, even though the typical viewing habits associated with TV and PC are markedly different

sion pictures on a standard PC

Another approach, favoured by companies such as Germany's Siemens Nixdorf. Britain's ICL and Compaq with its new Presario 5220 has been to build integrated or all-in-one PCTVs. Most of these machines can display a television picture or teletext page either full screen, or in a windows-style

Manufacturers of integrated PCTVs report steady sales for their machines, even though the typical viewing habits of TV and PC are markedly different - a PC is usually used by a solitary individual sitting close to the screen while a television set is often watched as part of a social gathering and at a distance. As a consequence, most analysts and retailers believe these hybrids have limited appeal confined to niche markets such as the student sector.

"Sales of computers that can also be used to view television and teletext are failing to live up to industry expectations," says Time Computer Systems, one of Britain's biggest direct sales retailers.

"The market is not ready for mass volume PCTV sales," says Colin Silcock, sales manager at Time. The company, which had been selling an extensive range of PCTVs, has withdrawn the systems and replaced them with standard multimedia PCs and optional

plug-in TV cards. Nevertheless, in an effort to overcome consumer resistance, Olivetti launched a different kind of PCTV last autumn. Oli-

machine is black, stylish and looks more like a video cassette recorder or a stackable stereo component than a powerful PC. Envision has built in loudspeakers but it can also be plugged into a hi-fi system for better sound and connects with a TV set and VCR using standard "Scart" connectors.

Envision attempts to overcome one of the main criticisms of previous attempts to combine PC and television functionality - the inability of a standard television screen to match the high-definition image available from a dedicated PC monitor - by building in a device that eliminates the flicker and permits an acceptable quality of text.

livetti's machine is supplied with a remote control and a wireless infra-red keyboard with built-in trackball to provide the functions of a mouse device. Inside, Envision is still basically a traditional PC with an Intel 486 or Pentium 75 microprocessor, 8MB of memory, floppy and hard drives, and a CD-Rom which, in the top-ofthe range model, can also play the new digital Video CDs. In future, Envision will also operate as a set-top box, converting

Apple Computer has developed a similar device called Pippin - a home electronics machine which delivers its sound and vision through a television, contains a Micropro-

the digital signals of satellite

video-on-demand services into

analogue television output.

board, a mouse or local storage and uses the television for dis-

Pippin has, however, met with a mixed response. Industry analysts such as Forrester Research argue that Pippin, like other similar devices, "is in no man's land, more expensive than a games machine, less capable than a PC. Consumers who can afford a computer will buy one, the rest won't spend \$600 on a machine that can't do word processing." At £1,400 in the UK, Envision is several times more expen-

Some analysts believe first generation machines such as Envision and Pippin could suffer the same fate of other consumer multifunction devices, such as Commodore's CDTV and Philips's CD-i players. However, they were disappointing partly because of lack of software. In contrast, both Envision and Pippin run established operating systems - guaranteeing that far more software is available.

Nevertheless, they may still be ahead of their time. The multimedia home PC platform is still evolving as technology advances and new standards emerge. In contrast, most successful consumer electronics products, such as audio CD players, have been based on stable commodity-like technology that can be mass produced at low cost.

For that reason, most PC manufacturers assume it will be some time before the home cessor, 6Mb of Ram and a PC ousts the TV from pride of CD-Rom drive. It adds a games place in the living room.

### **CLASS OF ITS OWN** Until now, choosing a portable PC could mean compromising on power and flexibility.

bigger and heavier machines. Its Pentium processing power, multimedia capabilities. upgradeability and performance certainly puts the NB-500/I in a class of its own. NB-575/I Notebook with docking 75MHz Pentium Processor 8MB RAM (expandable to 40MB) 10.4" Duai Scan colour screen 3.5" diskette drive 540MB removable hard disk drive NiMH battery and AC adaptor 16-bit SoundBlaster audio, audio ports and built in speaker 2 x PCMCIA Type II slots, or 1 x PCMCIA Type III slot Compact and light - 297 x 228 x 50mm and 2.9kg Windows 95 (or DOS 6.22 & Windows for Workgroups 3.11) pre-loaded £2,109.13 inc VAT (£1,795.00 exc VAT) As NB-575/I above, but with: 120MHz Pentium Processor 16MB RAM (expandable to 40MB) 10.4" Thin Film Transistor colour screen. 1.2GB removable hard disk drive £3,278.25 inc VAT (£2,790.00 exc VAT) Financing available For NB-575/1 £205.22 per quarter inc VAT For NB-5120/I £318.97 per quarter inc VAT Other specifications and finance available





Standard or MC-DOS 6.22 and Windows for Workshours 2.11 on request. Windows operation environment is pro-loaded, it is supplied complete with program manuals and distincts. All Bone, users have access to unlimited lechescal support. Please call for details. Prices and logo are registered trademarks of Microsoft Corporation, Intel Inside Your and Postsom an red trademarks of lotel Composition.

Tet 0181-452 4444 Fax: 0181-452 6422

01274-307226 01236-452052

01274-307294 01236-452254



■ Videoconferencing - By Geoffrey Wheelwright

## Kingpins focus on a standard

Intel and Microsoft announced plans to work with AT&T, PictureTel and other industry leaders

of huge corporations with dedicated satellite links or corporate chiefs with big

It is enjoying widespread use and is even popular enough to be offered as an add-on service to existing personal computer

Consider, for example, the recent joint development work done by leading videoconferencing system developer Picture-Tel Corporation and personal computer market leader. Com-Computer - which announced late last year the creation of an add-on desktop video conferencing system for computers using the Microsoft Windows 95 operating system. Known as the PictureTel

Live PCS 200, it is based on the popular H.320 videoconference standard, and is PictureTel's first product designed for use on personal computers running Windows 95. Its distribution in the US started in late November and it has a suggested US list price of \$1,995. The company has pledged to make the

Tideoconferencing is no US in the first half of this year. The PCS 200 operates over The PCS 200 operates over basic rate interface ISDN digital telephone lines and is interoperable with all other Picture-Tel desktop and group videoconferencing systems, as well as standards-based systems from other manufac-

> The unique thing about it. however, is that PictureTel and Compaq designed it together for Windows 95 - an unusual collaboration between PC and videoconferencing companies. PictureTel is also including its LiveShare Plus data conferencing software - to enable remote users to share computer applications, transfer files and use a whiteboard and common clipboard - as part of the package.

> Meanwhile, the two kingpins of the PC design business announced in January that they would focus on helping to standardise PC-based videoconferencing technology. Intel and Microsoft announced plans to work with AT&T. PictureTel and other industry leaders to achieve interoperable, standards-compliant parameters for

intended to help ensure that conferencing-enabled PCs can connect to each other and with multipoint services using industry-standard multipoint control units (MCUs), providing the same kind of simple connections people experience with the telephone today.

This standardisation will be around T.120, the International Telecommunications Union (ITU) standard for data conferencing, which was ratified in 1995. The companies say T.120 implementations are being designed by leading conferencing vendors for inclusion in their products.
Intel and Microsoft, in

co-operation with the International Multimedia Teleconferencing Consortium. (IMTC), intends to host a series of interoperability events throughout this year to test and resolve interoperability issues between desktop conferencing products, multipoint services, and application providers. The first event, scheduled for March 25-27 in Santa Clara, California, will test vendors' T.120 implementations to ensure interoperability across a wide range of products. Some 250 companies have been invited to the event, including

"Microsoft supports T.120 and intends to work with the industry to achieve interoperable T.120 solutions. We intend to provide a base level connection for widespread conferencing applications by multiple vendors," said John Ludwig, vice-president. personal systems division at Microsoft . The ability to collaborate and

cantly enhance the productiv-The new British Telecom centre in Suffolk brings together

share applications will signifi-

230 specialists ity of users of the Windows 95

operating system." It is not only American companies that are doing leadingedge work in videoconferencing. British Telecom, for example, last year established what it calls the Centre for Human Communications at BT Laboratories (BTL), Martlesham Heath in Suffolk.

According to Dr Richard Nicol, who heads the new centre, its work goes beyond just the specific design of some-

recognised the importance of bending technology to suit people rather than the other way round," he says. "Our aim is to ensure that people get the best from BT's technology and that BT in turn has the best technology to offer. We have created a power-house that is unique in the world. We will focus on the challenge and opportunities presented by convergence between video and voice systems, between television and telephony, and between information and com-

The centre, part of BTL's Advanced Applications and Technologies unit, brings together 230 people working on video telephony, videoconferencing, video and speech coding, face recognition, speech and speaker recognition, textto-speech conversion, networkbased call answering, interactive speech services, remote presence, 3-d video telephones. multimedia databases, virtual reality, human factors consultancy (including user and task analysis), usability valuation, user-centred design and the

munications."

For those who do not want to wait for the results of all this

"psychology of telecommunica-

encing industry, is doing joint res Collaboration: PictureTel, a world leader in the videoconfe Compaq, the PC market leader. Pictured here is PictureTel's Concorde 4500 system

work - or only need videoconferencing facilities once in a while – service bureaux are starting to offer videoconferencing as part of their range of business services - along with courier services, photocopying, faxing and desktop publishing. In the US, for example, some branches of the popular Kinkos office service outlets are now providing a videoconferencing

Kinkos provides for both "Point-to-Point" conferences with one other site, or a "mul-

service.

tipoint" conferences with as many as seven different sites at once. The company says that during a multipoint con-ference, the site which is speaking is the one that every-

one else sees and hears. If another site has a question or comment, the picture and sound are apparently designed to automatically switch so that

■ Network services

### Doubts over links between electronic trading networks

Message formats can change in small but significant ways as they pass between networks, writes John Kavanagh

going through mixed feelings about how easily companies should be able to send business transactions from one network to another.

The issue is a big one for organisations seeking to gain the administrative savings and just-in-time ordering benefits of electronic data interchange. EDI is the exchange of routine business documents, such as orders and invoices, between trading partners' computers with little or no human involvement

In most European countries there are at least two organisations offering EDI network services: typically, the national telecoms monopoly and a couple of US international services. In the UK, the most open telecoms market, there are half-a-dozen, plus others selling services based on them. Network services receive

transactions from customers and direct them to the right. destinations. EDI users thus avoid the need for separate links to every electronic trading partner: they have just a cial service. Network companies initially

kept their services separate. This meant a company trading electronically with customers which used different networks had to have a connection to each one. Then, in the early 1990s, after much public acrimony the main services in the UK agreed to provide links between their networks. A study by the UK Network

Liaison Group, made up of network companies and user bodies, shows that the links are free of charge, have technical support 24 hours a day and that business transactions are delivered from one network to another immediately in almost all cases and always within 15 minutes. Even so, there are mixed

views on the efficacy of the links - and on whether they are being actively promoted by either the services companies or big users. The Network Liaison Group says the links between the net-

to play in expanding electronic

trading, to the benefit of business in general – but describes the current link facilities as "technically fairly basic". The problem is that several different linking methods are used, so message formats can change in small but significant

ways as they pass between networks. The Network Liaison Group points for example to the fact that although audit trails are provided from end to end the audit information is not always presented in a service supplier's usual format. This can nconvenience its customers.

more serious concern is A that of differences in address formats between that of differences in petworks. In addition, some data fields can be used for different purposes on different networks or have different formats. For example, the data field which identifies the message type can be slightly differ ent, so a receiving network might not recognise an incoming message as an order.

When this happens, messages cannot be sorted into the different types but are just passed as a mixed dump to the user," says David Kalu, EDI specialist at user and industry

etwork services and their big customers are ticular, find it useful to get their mail sorted."

John Pennell, founder of EDL specialist Meadowhouse Bar-Laser, says users can get round some of these issues by special programming of their EDI software packages - but he adds that this can be "a massive problem" for big maintrame computer users with many electronic trading partners scattered across several net-

David Kalu at the Article Number Association agrees. This is one reason why some big companies say their suppliers must connect via a specific network," he says, adding, half-jokingly, "I wouldn't be surprised if network companies introduced services such



12.77

Services: 'Our emphasis is on

as message sorting to discourage users from linking to rival networks and using the inter-

The European Electronic Messaging Association is scornful about the service suppliers' whole approach.

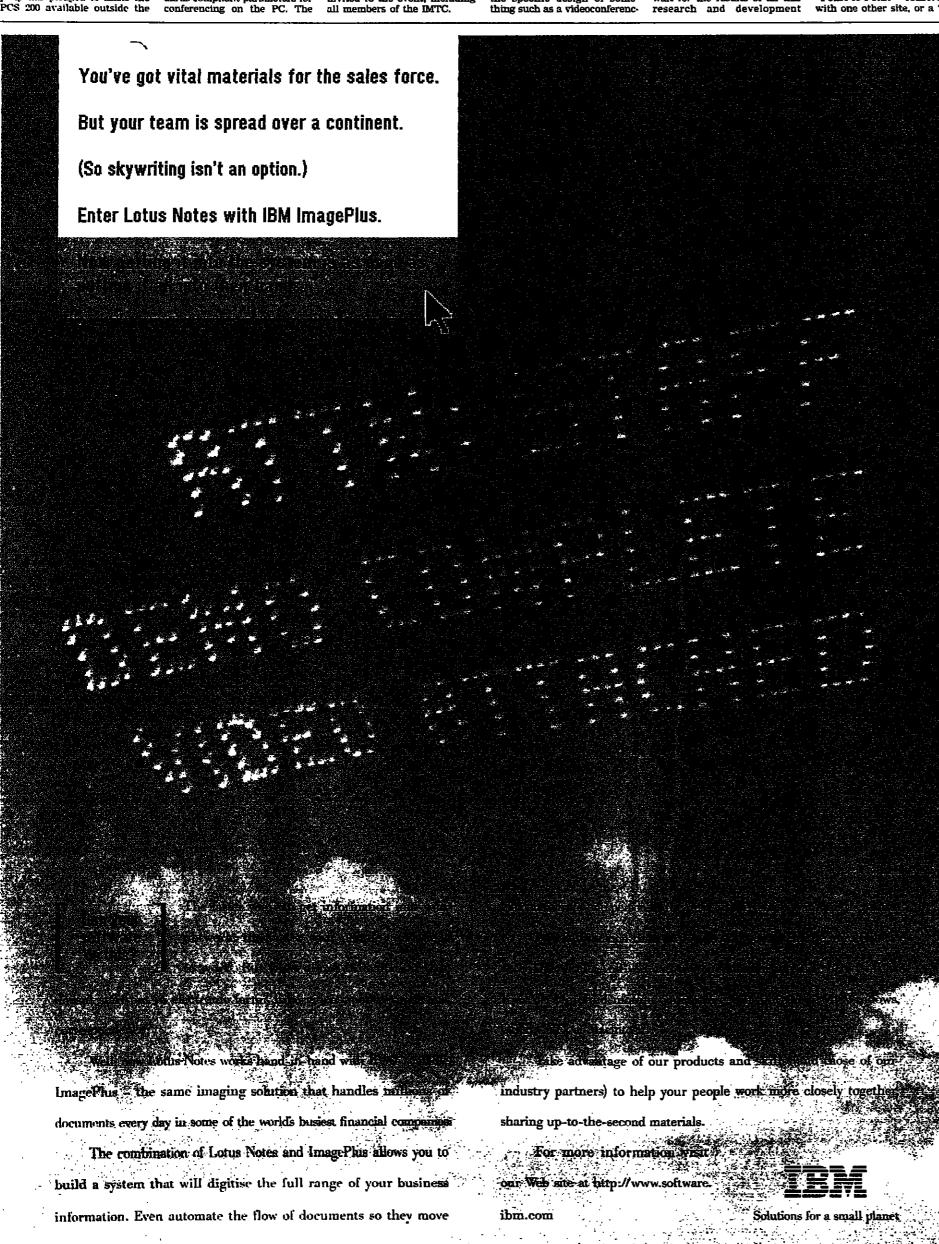
"We've surveyed network services across Europe and found little or no interconnection," says executive director, Roger Dean, "The UK is slightly better but the links here are still mainly proprietary. In Europe, services link using the X.400 messaging standard but they don't offer the X.435 EDI extension. This is all because suppliers want to hold their market share."

John Thorpe, managing director of network company GE Information Services, agrees that interconnection in Europe is patchy: indeed, where links between international services exist they are made in the UK or the US, so traffic between users in France or Germany might first travel across the Channel or even the Atlantic.

Mr Thorpe also sees a need to sort out the issues of inconsistent address formats and end-to-end auditing. But he says the days when the main suppliers in the UK jealously prevented their customers from communicating between networks are over.

"The market has come to realise that interconnection is good not only for users but also for suppliers, because it enlarges the whole market." he

commodity service: our emphasis now is on delivering business productivity. The real obstacle to electronic commerce is the difficulty of changing business processes both inside a company and between companies, to take



Bourcing

range o



Keeping the network running - By Nuala Moran

## A range of strategies and options

sourcing as the loss of empire and status, IT managers are now assessing the contribution it can make to their operations in the same way as they might judge a new piece of hardware or an improved networking technology.⊶:

ries - network

ver links

electronic

tworks

n Kayamaga

 $G_{i} = \{i, i, j \in I\}$ 

Chellis Casumo

. . . .

· t. . .

ेक्कराई. . .

2002

**ማ** ድ ድ ክ

المناخ

\* 777

...<u>≃</u> €

12 1 B

25. 10. 10.

4

1.0

ক্ষাক্ত ক্ষাক্ত

À

"Outsourcing is no longer something that is done to the IT manager by the finance director," says Dr Ian Dewis, principal of CSC Index, who has just concluded a study of attitudes to, and experiences of outsourcing among the IT directors and managers of 600 companies worldwide, including 200 leading US corpora-

"Outsourcing has gained respectability. There is a growing awareness that you can not do everything in-house, and that outsourcing must be considered as part of the IT strategy," says Dr Dewis.

In fact, outsourcing has become a misnomer, he says.
It is now as much to do with bringing in activities and assets as outsourcing them."

Kodak outsourced important components of its computer systems in 1989 and this was a watershed event in the development of a robust and thriv-



An option allowing user-companies to focus on core

competences while improving their IT operations.

market exceeds \$10bn and is growing at 16 per cent a year, while the European market is growing by 20 per cent a year. Dr Dewis said South Africa and Australasia were poised to join the outsourcing rush, taking advantage of the experiences of US and European com-

In New Perspectives in IT

Outsourcing of services should be an explicit part of the IT strategy, not a substitute for it, says new research based on the experience of 600 user companies worldwide

Outsourcing, Dr Dewis draws on interviews with 600 IT executives to demonstrate how to structure and implement successful outsourcing relationships. Among the deals he has studied are Kodak's with IBM. Digital and Businessland; British Petroleum's with Sema, Science Applications International Corporation, and Syn-cordia, Pacific Bell Telephone's with Arthur Andersen; and. Delta Airlines' with AT&T GIS (which has now reverted to its former name, NCR).

The research was carried out at the request of the 600 com-panies, which are all members of the CSC Index Foundation. the independent research arm of Computer Sciences Corporation, one of the leading out-Sourcing companies.

According to Dr Dewis there are four categories of outsourcing. The first two-total outsourcing and selective outsourcing - are well established, while transitional outsourcing - where ageing systems are outsourced to focus attention on the creation of a new system - and transformational outsourcing - where the outsourcing company builds and

just emerging. All four types are growing steadily in Europe and North America, and are showing signs of developing in the rest of the world.

The motivation for outsourcing is changing from an initial focus on reducing costs and improving service levels. Now companies cite a variety of reasons: a desire to concentrate on core competences; as a means of achieving change; to fix information systems or processes that are perceived as "broken" (a surprisingly high number of organisations are opting for outsourcing for this reason); to provide an infusion of financial resources.

"Several companies have recently outsourced IT to cash in on the value of their older assets in order to secure funding for new ones," said Dr

As experience of outsourcing accumulates, and the market matures, perceptions of it are changing, too. Until recently, most IT staff thought of out-

> rigin, the new designation for outsourcing

operations by Philips,

the Dutch electronics giant,

has celebrated its formal

arrival in this fiercely competi-

tive marketplace by announc-

ing a £75m deal with Imperial

Chemical Industries. This five-

year contract will see Origin

and services group.

into rigorous bidding.

of impressive rivals.

international blue chip client

are important to Origin, its

executives cannot conceal their

EDS and CSC, the two lead-

ing US outsourcing companies

players, bid for the ICI deal. So

Peter Overakker, a senior

manager at Origin, describes

the selection process as "an

open discussion". Since Mr

Overakker's three years at

decade working for EDS, it is

fair to assume he knows the

bidding tactics of large IT com-

He says that "honesty

proved the best policy" with ICI - "we told them the things

we didn't like. You have to be

very careful when you take

over mainframe computers, the

outsourcing contractor must be free to change things".

Large mainframe computers

are expensive to maintain, and

their significance in a world of

powerful desktop PCs remains

controversial. Origin will keep one IBM mainframe running at

an ICI site in northern

England, but a Rotterdam site

will migrate towards smaller systems. Overakker's insis-

tence on flexibility seems to

have struck a chord with ICI

"Philips and ICI have similar-

ities in that they're both re-

the attractions of ICI as a cli-

ent. The 399 staff it has inher-

tted include a strong core of

competence in a German man-

ufacturing software suite that

is currently in vogue across the IT sector. SAP has an

immensely successful series of

programs that have also found

favour in the chemicals indus-

try - "since so many projects

use SAP, we are always glad to

acquire more people who know

BSO, a Dutch software

house, 41 per cent owned by

Philips, is one of the compo-

nents of Origin and another home to SAP expertise. So both

parties stand to gain by a pool-

ing of specialist knowledge

that is in demand across

A recent flurry of aggressive

bidding has seen large outsour-

cing contracts changing hands.

This, in turn, has provoked

suggestions that some large

companies are prepared to

enter extremely low bids in

order to win pivotal deals that

Mr Overakker rejects any

suggestion that Origin will

enter into this game: "Forget

it," he says, and points out

that Origin "has come into

existence with a formidable cli-

ent list, and does not need to

engage in loss-leading deals in

A clear note of pride is evi-

dent as the former EDS execu-

tive lists his new company's

achievements: "We've even

order to impress".

will raise their profile.

it," says Overakker.

Епторе.

Mr Overakker is frank about

organising their operations".

panies inside out.

Philips was preceded by a

did French Sema and ICTs own

in-house IT department.

runs the new applications - are sourcing primarily as the kiss of death," said Dr Dewis. "Now the tables are turning and staff welcome being part of an outsourcing deal."

In the past, many IT managers believed that outsourcing amounted to giving away the strategic assets of the company. Today it is seen as an effective option for dealing with many of the pressing problems facing the PT depart. ment, such as breaking free of the shackles of legacy systems and people.

However, warns Dr Dewis, outsourcing must not be viewed as the panacea for all inadequacies.

As the market matures, the nature of the outsourcing contract is changing from a simple agreement to buy certain services. For example, British Gas and Amdahl recently set up a joint venture to develop and run the utility's billing system. and sell the service to other companies; Delta Airlines hived off its IT operations into TransQuest Information Solu-

■ £75m outsourcing deal - report by Michael Dempsey



The remote systems management centre at Siemens Nixdorf. Bracknell: providing pro-active support for all ments of companies' network information systems – see also report on helpdesks, pages 18-21

tions, a 50-50 joint venture with AT&T GIS (now NCR), which will provide services to Delta and sell the same services to other airlines; and Swiss Bank acquired a stake in Perot Systems as part of an outsourcing deal, with the objective of selling outsourcing services to other financial services companies. "The range of potential motives for IT outsourcing makes it ever more critical for a company to identify why it is outsourcing. The factors that determine success will be

المحيّانمانده

vastly different depending on the strategic intent," said Dr Dewis. His research has identifled three kinds of strategic intent for IT: improving the operation of the IT department; extending the impact of IT on the business; and the desire for commercial exploitation of IT resources and industry knowledge. "Failure in outsourcing can often be attributed to a mismatch between the strategic intent of the client and the corresponding motivation of the vendor," said Dr Dewis.

was increased impact or commercial exploitation but the customer structured the contract around improving IT operations.

Our research shows how the purpose and nature of IT outsourcing are changing, and illustrates just how varied the strategies and options have become." Dr Dewis concludes. "There is no longer a 'one-sizefits-all' approach to IT outsour-

ing outsourcing services industry. Six years later, the US

Recruitment - By John Kavanagh

## Fresh approaches are emerging

Once people have joined, motivation rather than pay is the main factor that makes them stay, employers and recruitment agencies say

esperate shortages of skilis are forcing companies into new approaches to recruiting, training and motivating computer staff as systems DTOjects are restarted after the

IT staffing is a special case. because IT people have always tended to see their careers being in IT rather than with a particular employer. The latest annual IT Skills Trends Report, publisted by the Institute of Data Processing Management, shows that 53 per cent of computer staff expect their next job move to be to a new employer - and 44 per cent expect to move within 12

Philip Virgo, the report's researcher, suggests focusing recraitment effort on people archer, suggests focusing whose personal circumstances are likely to make

them stay. "Those whose health or disability problems of their own or in members of their family are taken into consideration can display well above average loyalty," he says.

Local people with mortgages and children at school, especially mothers returning to work, are worth targeting, Mr Virgo says. Local graduates who have lived at home and gone to the nearest university might also prefer a local company. His point here is that it is not necessarily best to focus simply on people with the skills immediately in demand - or on young whizz-kids.

### Problem of age discrimination

Age discrimination is an issue in an industry in which many IT teams regard people over 35 as "past it". Yet the Institute of Employment Consultants says that more than 25 per cent of companies would fill vacancies twice as quickly if they did not specify age limits, and a further 57 per cent would fill jobs 50 per cent earlier.

Gary Ashworth, the institute's president who is also managing director of Abacus Recruitment, says age discrimination just keeps the problem going, because teams get younger and employers then say that an older person

will not fit in. "People complain about skills shortages but they create the shortages statistics themselves if they specify an upper age limit, because they're aiming at a much smaller pool of people," Mr

Ashworth says. Once people have joined, motivation rather than pay is the main factor that makes them stay, employers and

Contractor rates might be growing at between seven and 11 per cent a year but employers are holding down pay rises for permanent staff.

"In the more inflationary 1980s it was felt that you had to pay certain rates to get IT staff, but employers now regard IT as no different to other activities and are looking at all costs very hard," says Colin Osborn, associate director for personnel at IT services group CMG.

Tony Reeves, chief execu-Delphi, agrees and says motivation is now the big issue especially for companies which still insist on going for younger staff.

"Younger people, in particular, want to keep pace with technology - and if necessary they'll do it by moving on," he says. Mr Reeves points to training as all-important here, a view supported by a survey of 1,100 members of white-collar union MSF, Almost 90 per cent said training increased their motivation, including 52 per cent who said it had a great effect. More than 95 per cent said it improved their job satisfac-

IT managers have bear all this before and point to the risk of losing young people in particular once they have invested in giving them/train-

ing and experience.
But a complete rettink is needed here, according to some in the industry. "Companies have traditionally been unwilling to train

because of fears that their staff will then go to another employer," says Dave Bevan, a manager at IT retruitment company, Hunterstil. "However, these days many people are leaving to become contractors instead. The biggest



David Revan of Hunterskil Howard: 'Many rained people are leaving compriles to become contractors

source of new skills is now firs time contractors. this shift is in line with treids towards flexible workin, fixed-term permanent contracts, contracting work oft and so on. So, if IT dpartments are looking at fexibility, they must expect same from staff and see he same from stan and see sts to give training. The staff might still leave but the

recruitment agencies say. employers are developing a pool of people for the whole market - people who will very likely end up bringing their training and knowledge of a company's systems back to that company as contrac-

> Philip Virgo, author of the IT Skills Trends Report, has an equally radical proposal: employers in an area could get together to develop or commission IT training which is relevant to all of

### FT-IT Recruitment

Senior positions in the converging worlds of information technology and finance appear in the FT's weekly IT Recruitment section, published in UK editions each Wednesday and international editions each Friday. Also available on the World Wide Web at www.FT.com

them. This would ensure that training closely matched local needs and costs would he shared while a pool would be created of trained people who might at least stay in the area and move between the sponsoring companies.

Trends among staff to become contractors and among employers to contract work out leads Mr Virgo to highlight a need for skills audits to identify skills which are needed among permanent staff and tasks that can be farmed out. Training, motivation and career development can then be directed accurately at the key staff who must be retained.

Leeds Permanent Building Society developed skills audits down to a fine art and won a British Computer Society award in 1994. It introduced the society's Profes-sional Development Scheme, which plans and monitors individuals' training and experience, and linked it to the personnel system. The results included better planning of training and recruitment to meet needs, a £100,000 saving from better organisation of training to take advantage of block bookings, and higher staff morale -even though career move-

ment was static. The staff were motivated by the fact that the organisation was clearly committed to their development.

These and other proposal are still generally in their infancy, but there is a need for urgency. "Employers adopting new approaches are still in a minority." says Dave Bevan at Hunterskil. "But these attitudes must become prevalent or the jobs market will die."

### Origin enters premier league

A \$1.2bn company employing 10,000 people in 27 countries has joined the top league of outsourcing contractors

taken a contract from right claims Origin will steer well under the nose of EDS in Dal-

running computer systems that formerly came under the Origin runs a data centre on international chemicals group's telecommunications behalf of McDermott, the energy company, under a \$20m-a-year contract. The cen-The principle of hiving-off IT tre is located in EDS' home operations on fixed-price contown of Dallas. From his Eindtracts is now established prachoven office, Mr Overakker is emphatic that Origin "has tice among corporates. And the scale of these contracts has drawn the biggest IT players something new to offer as a truly European player. I think we are a good European alter-

While the scale of the ICI native to other contractors". deal and the endorsement of an Outsourcing is often feared by incumbent IT staff, who perceive it as a thinly-veiled exercise in cost-cutting and job delight at beating off a string

clear of this kind of practice. keeping the workforce on-side in the interests of the customer.

Grundig, the German consumer electronics company, and Daf, the Dutch truckmaker, have also recruited Origin to run their IT operations this year.

ICI is covering its bets with the move towards outsourcing. manager, reports directly to the ICI group finance director. A scientist by training, Mr Sykes describes his career with ICI as "20 years of business

control of the historically important Runcorn computer centre, ICI itself retains control of future computing strategy.

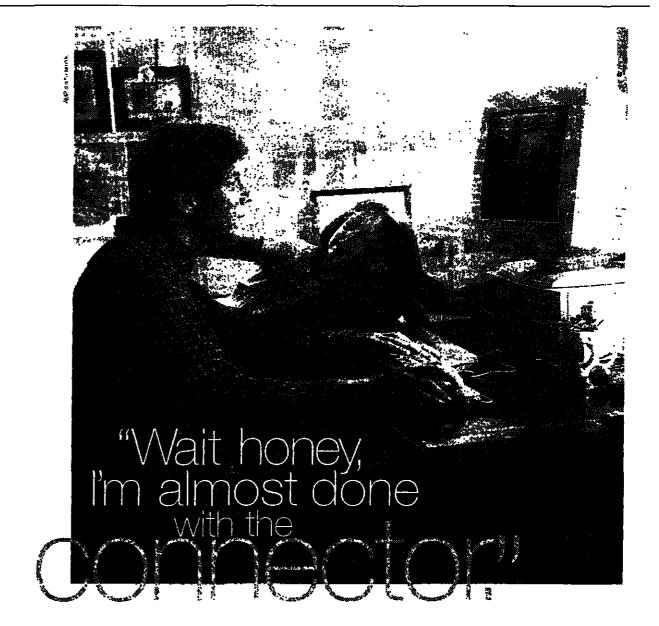
"The £75m contract does not extend to ICTs actual IT budget. At ICI, we don't regard the provision of IT as a core competency - others can do that better. But the development of an IT strategy and the method of delivering that strategy is a key competency," he says.

The international corporate IT weight of ICI is spread across several outsourcing contractors. When ICI demerged Richard Sykes, the group IT its Zeneca pharmaceuticals and agrochemical unit in 1993, the company needed to split the voice and data telecoms network that serviced both operations. It would have cost reductions. Mr Overakker management". He points out £5m to do this in-house, Racal

Network Services was awarded a £15m three-year contract to handle ICI's telecoms. But Racal paid £3m for the network assets. Added to the potential spend on dividing this up internally, ICI effectively saved £8m. Meanwhile, ICI Paints has outsourced to CSC in western Europe in a £30m deal. In North America, ICI Films employs EDS.

Half a dozen ICI personnel from the Runcorn site will remain on the company payroll to oversee the crucial Service Level Contract: an SLC, stipulating precisely what the customer expects, is vital to any outsourcing deal - not that Mr Sykes expects problems.

He has fulfilled his objectives of preventing redundancies and managing change within the IT world.



Connector? It looks like a computer. Well, not to someone from AMP, because, as the world's premier connector company, our people have been stretching the concept of connectors. 

Usually thought of as pieces of plastic and metal sitting between cables and circuit boards, connectors are being redefined. We're broadening their definition to include entire signal paths. For example, we see the one between a keyboard and the computer screen as one long connector. • This broader definition is the basis for our

future direction. By building on our traditional strengths, we've added technologies that fit into our vision - technologies like sensors, switches, optoelectronics, circuit boards, and wireless components. • And today, we're bringing these technologies together to create proven connectivity systems that our customers can incorporate into their designs, helping them reduce costs and speed their product development. \* So while not everyone would think of a computer as a connector, our customers benefit because our people do.

AMP Incorporated, Harrisburg, PA 17105-3608. Contact your regional center: USA 1-800-522-6752. Canada 905-470-4425, England 44-1753-676800. Singapore 65-482-0311. Japan 81-44-813-8502.





Hot spots: helpdesks and support centres

he helpdesk has sud-denly become the hot place to be. Forget the drab, untidy corner where "support" staff were once consigned to a despised lim-bo - the modern helpdesk is a lively hub, buzzing with activity, staffed by valiant heroes whose expertise helps keep the show on the road.

In some places - for example, outsourced support organisa-tions for whom the helpdesk is a "bread-and-butter" function the support centre has a fevered atmosphere similar to a telephone-sales room, with targets, queued calls and the "resolution count" of solved problems on display for all to

As businesses become more reliant on PCs, the need for technical support is vital. How-ever, as machines and systems come more complex, the harder they are to use, says Duncan Brown of the market analyst company Ovum, and author of the Ovum Evaluates report on helpdesk tools.

The main issue is the technology paradox: the fact that technology - supposed to make our lives easier - actually becomes more complex, and the users become flummoxed when they fail," says Mr Brown who is not convinced by the argument that users are becoming increasingly sophisticated about complex systems. We repeatedly see the results of making technology available to non-technical users, especially where IT is a part of the job - but not the core."

The customer could be internal or external. The helpdesk devised for internal users of information technology with computer problems has provided a highly adaptable model for the "customer-service

Utilities and other large companies have been quick to adapt the idea of problemtracking, using a database of solutions. There are an increasing number of helpdesk tools that deal with both IT and customer-service areas.

"We tend not to make a distinction between the applications, although some solutions on the market may address one area more than another: some, such as Vantive, sell to both," adds Mr Brown.

His report estimates global revenues for this corner of the

## More help to keep the show on the road

Time spent at the helpdesk front-line is now recognised as an ideal grounding in both information technology and the core business in which it is used. The helpdesk and IT service centre is something that business managers should care about, discovers Claire Gooding



Here, and on the following two pages, FT writers examine the role of the helpdesk



ses become more reliant on PCs, the need for technical support is vital. Sainsbury's uses ServiceCentre from Peregrine Systems to manage its helpdesk. Report, Page 20

\$280m in 1995, growing to \$813m by the year 2000: "As a good indicator of the level of growth, most of the companies we looked at were growing at

and 1995." Helpdesk tools in both markets have taken advantage of IT developments such as computer-telephony integration (CTI), open systems, clientserver, and even artificial intelligence (AI).

100 per cent annually in 1994

There are 170 different solutions sold for small and large users; some are off-the-shelf solutions, others modular and highly customisable. There is great variety, too, from calllogging and call-management tools to knowledge-based tools which use Al or neural networking.

Open systems and clientserver technology have affected both the environment software industry to be about in which users need help (and

more of it, in a distributed environment), and the helpdesk tools themselves.

Increasingly, they use Windows front-ends, and are able to operate in a mixed environ-The key is to have a single

source of contact, with all problems channelled through one point, according to Carter Lusher, a Gartner Group analyst and expert on helpdesks: That doesn't mean that there is one big call centre - it could be multiple-tier helpdesks, but the user has only one help number to call.

"It's important to have one point of contact with distributed computing. With client-server systems, end-users might have Unix/Motif, Mac or PC, and having one point of contact puts the responsibility for determining the cause of the problem in one place, in the helpdesk, where it's their

Answering a broad range of queries puts pressure on exper-

tise and skills. Some organisations keep a sense of excitement and urgency at the internal IT support desk by passing on specialist questions on, for example, iron mainframe computer performance - to remote experts "on

The US electricity supplier, Entergy (see report, right) demands an answer within three minutes from the frontline staff in its "command theatre", otherwise the problem is escalated to the next level. Swift and courteous service to PC users is vital, when so many non-IT experts end up

relying on their PCs for every-"Good 'people' skills and good telephone skills come before technical skills - it's a public relations role, because

the people calling are often angry or frustrated, so troubleshooting skills are important." says Mr Lusher.

Computer skills and people skills have not always gone hand-in-hand, however. Time spent at the helpdesk front-line is now recognised as an ideal grounding in both IT, and the core business in which it is used: coding is no longer the only skill that matters in IT.

Training and support were sometimes considered to be jobs for second-raters, but in fact provide two-way education for IT workers. Teamwork and good communication skills count almost as much as IT skills, especially in customerservice. For people - and software suppliers - with the right skills, there are tremendous opportunities in specific market niches, including customer service, outsourcing, and training. The Helpdesk User Group E Electricity industry application

### Service with a smile

The helpdesk can be a good place to get to grips with the way a company operates, writes Claire Gooding

t Entergy, IT support is At Entergy, it supports far from being a dead-end job. Philip Orton is back at his desk at 7pm, while everybody else is celebrating with a fellow member of staff who is retiring after 44 years in the company. Mr Orton is director of comeveryone in the business, is setting up a sister organisation specifically for insurance and puter operations at New Orlehealthcare helpdesks. The ans-based electricity supplier Entergy. "If you object to being on

group has nearly 6,000 mem-ber-companies worldwide, covcall, you don't belong in a job like this," he says. Charming on the telephone, relaxed, and ering 20 countries, 13 of them "The number of 'fix it' calls are on the decline as people get remarkably tolerant of being higher quality products, but there is an increase in what I bombarded with questions, it becomes obvious why he in in charge of a "command theatre" (no humble "helpdesk" here) call 'Just-in-time consulting'," says Malcolm Fry, an independent consultant on customerwhich has become a sought-afservice support, who is on the ter career step for IT, staff in Entergy.

advisory board to the interna-tional Help Desk Institute, "If you go back three years, HUG's US counterpart. you begin to see dramatic "End-users now have access shifts in the way helpdesks to end-user tools such as Powwere deployed," he explains. "Services radiated out from a central mainframe, and that erBuilder, so now the typical enquiry is: 'I've written 15 lines of code and it's not workbegan to change, because of the huge uptake of personal computing and the PC, the change in the telecoms net-

"With Web usage spreading, there's a shift in the tools requirement: you need desktop work architecture, the differimaging and the ability to work two machines together as one, 'walking through' the pro-

Such tools may help to bring down the total cost of IT, 80 per cent of which clocks up after installation, according to Bill Kirwin, Gartner Group's vice-president and developer of the widely-used model for the

Carter Lusher: "It's important to

have one point of contact with

in Europe.

(HUG), a central forum for

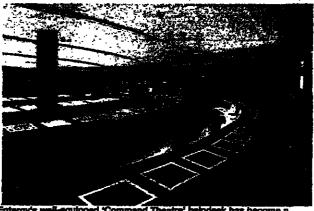
total cost of IT ownership. "Every dollar a company saves on formal support costs around \$1.50 in hidden costs, because the support effort just gets pushed down the line to people who are paid to do something else," he says. "We call that underground supent communications protocols, configuration, management and the piecing together of systems supporting different devices.

"The way the applications were being built also started to change along with distribution throughout company. The groups then became inter-de-pendent as well, because the environment couldn't stand on its own - the help had to be integrated in the same way that the services had become

Entergy looked at varying levels of consolidation and discovered that the number of disciplines and functional groups were growing to support the way applications were delivered. "The functions were way that a helpdesk activity

growing and changing, in the got involved: it was a matter of what you need when you need it - check and adjust all the time - people technology, staff levels, whatever needed adjustment."

The company looked at the consolidation of 15 helpdesks, with the help of the "Ultimate Helpdesk", a committee of 12 people who represented all the different business units and helpdesks. They did a requirements specification, scanned the industry and examined several solutions including Infoman and KBMS.



sought-after career step for the company's IT staff

IN THE TRADITION-RICH neighbourhoods of New Orleans, a global network ching with the centuries-old home of Wedgicand. The IBM Global

Network lets Wedgu und keep its master craftspeople working together in Britain. ichile sull servicing customers in citics and taxens in serently countries.

Customer questions about patterns and

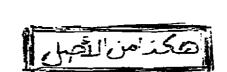
nearlically can be questly answored. Orders can be placed, Quality control for the hand rathed chines is more easily maintained. In all, the HIM Chibat Network lets Redge, sell keep their

traditional home while giving them the reach of a global corporation.

Hant to see what IBM can do to improve your competitiveness? I isit our home page on the World Wide Web at

http://ciric.ibm.com/globalnetwork.or call us on 01926 464343.

Solutions for a small planet







■ Bureau service - By Claire Gooding

### Customer services shake-up sparked electricity sideline

Helpdesks need not stick to just one area of expertise: London Electricity is helping to sell gas

s a sideline to electricity, London Electricity now sells helpdesk services. Its centralised customerservice centre proved such a success that it set up a bureau service, and now its first client, Total Gas Marketing, is using. LE to service the response to an advertising campaign.

Jon Gritten, business devel-opment manager at London Electricity, plans to sell expertise and customer services, such as call centre services. from the regional electricity company's customer operations centre, set up in Bexley Heath early in 1995.

Previously, LE's own customers had experienced problems: "We weren't giving a consistent quality of ser-

A freephone

customers to

ActionTrac's

number connects

experts in the US

icture this scenario...

report is nearly finished. You

just have to transfer some fig-

ures from the spreadsheet, do

a speil-check, print it out,

and... the computer goes

down at the 11th hour. You

call the IT department, but no-

one is available. The frustra-

Superman to help: ActionCall.

This service, offered by the US company ActionTrac, pro-

vides 24-hour, 365-days-a-year

support for all PCs and their

The service aims to solve

problems with a wide range of

hardware; all the main operat-

ing systems, including Win-

dows NT and Windows 95.

Novell, DOS. OS;2 and Macin-

tosh System 7.x: leading appli-

cations packages, including

desktop publishing, graphics.

project-scheduling and inte-

grated software suites; utili-

lies, such as Anti-Virus.

Backup and Scan; add-ons.

fax links: plus multimedia

modems, CD-Rom and

But now there is a PC

tion is indescribable.

software systems.

Racing to beat the

clock, your 20-page

one of our five different call centres the customer rang, and who they got on the phone. So we amalgamated the five centres," explains Mr Gritten. This meant there was a clear

brief when LE started looking for helpdesk software. "Whatever the electricity issue was, they could ring one number and the person would respond quickly, and secondly would be able to resolve the difficulty. Whatever the issue was, the aim was to reply in one call." The speed of amalgamation.

over a six-week period, cut down the number of potential suppliers. LE looked at five vendors supplying packages that dealt mostly with internal customers, and chose US company Inference, from Novato Ca, whose CBR2 product uses "case-based reasoning" to store and retrieve information for IT helpdesks and customer-care call centres.

It is expanding rapidly worldwide, and has a UK operation based in Slough "Inference's response was

systems and the Internet.

Customers of ActionCall.

which was introduced in the

UK a year ago, call a free-

phone number which connects

them to ActionTrac's experts

So far, the company claims

a 100 per cent "solve" rate for

callers' problems - most are

ActionTrac has seen its cus-tomer-profile change, too. Ini-

tially the customer list was

comprised of mostly non-tech-

nical, mainly financial, man-

agement: now 20 to 30 per cent

of contracts are being made

Third party desktop sup-

IT departments, admits Simon

Anderson, managing director

of ActionTrac (UK). "Now IT

departments are more focused

on areas which are business

critical', such as internal net-

working or replacing outdated

kit, in house #1 departments are coming and saying take

away the desktop application

and let us work on our core

large project or major IT fail-

are within the organisation,

often don't have time - or

don't want to take the time

- to sort out an individual's

problem with word processor,

"Technical staff, busy on a

port was previously

seen as the "enemy" by

with IT departments.,

sorted within eight minutes.

Experts only a phone call away

Rapid help for PC users - report by Marcia MacLeod

vice - it depended on which the most impressive and responsive, and they offered us precisely what we wanted at the right price, within the sixweek deadline," recalls Mr Gritten. "The account manager gave us excellent support, giving us all sorts of support in the early days."

London Electricity uses a mix of PCs, with the customer information held on an Amdahl mainframe. The purpose-built centre with its new technology required an exacttraining programme - which last year won an award for excellence in

"It is very comprehensive - every operator receives five weeks' training before starting, with an update and assessment every eight weeks using video and other techniques," says Mr Gritten. "The objective is to make sure that every single operator gives a constantly high level of service. It is all centred to giving the customers the correct answer rather than keeping them hanging on, or passing

database or spreadsheet," says Mr Anderson.

Luton-based manufacturer of

particle counting instruments.

uses ActionCall to back up its

internal support. "We have

one person supporting upwards of 200 users in the UK," explains Peier Arnold.

vices operations manager.

"We turned to ActionCall last

November to smooth out some

of the peaks and troughs of

Flexibility in

is another

benefit of

ActionCall

expertise, we do have prob-

lems which even they cannot cope with. So if there is a

problem our in-house staff

cannot deal with, they call

ActionCall, which in turn

talks directly to the person having the problem."

Pirelli Cables, which makes fibre optic and other cables at

six sites in the UK, signed up with ActionCall in April 1995

to help the IT department to

cope with an unusually test-

Although we have in-house

payment terms

ment information ser-

Coulter Electronics, a

LE now receives 37,000 calls weekly, whereas the five call centres used to receive 50,000 calls weekly.

"We deduced we were giving a much better level of service in answering the query first time around," says Mr Gritten. "From one centre, we are able to answer the operv and give them the correct information. We do independent customer satisfaction surveys, and the most recent one six months ago - by NOP - gave us a 91 per cent level of satisfaction with the call-centre centre. We're striving to increase that still further."

Graeme Boyd, Total Gas Marketing's sales and marketing manager, willingly recommends the service. "We understand that this was the first time that London Electricity has used the Customer Inquiry Centre for an external organisation. We were pleased with the speed of response and the comprehensive IT and telecoms approach LE was able to

We were introducing a new

network, switching from

stand-alone PCs with a num-

ber of different software pack-

ages to a standard configura-

tion based on Microsoft,"

explains Paul Freemantle, II

manager. While our IT staff

was working on the transfer. I

didalt want them to be

diverted from their main task

- but we still had to support

desktop users, particularly

those being given Microsoft

Purelli Cables signed up 500

users throughout its six facto-

ries, but because Freemantle

did not know how much help

employees would need, he

signed on for 50 calls a month,

rather than on a per-user

basis. Some leeway was built

into the contract so that if

Pirelli Cables used less than

50 calls it could get some free

service later, and if it called

more than 50 times a month.

it would pay Attion Frac extra. This Sexibility in payment

terms is another benefit of

ActionCall. The published tar

iff is £149 a year for a single

user, or about \$14 £15 a call.

However substantial volume

discounts bring the annual user call down to about \$110.

or customers may pay for a

pre-determized number of

Action Trac is on 9800 354000.

calls, as Pirelli Cables did,

software for the first time."

ing period.

■ Retail automation: application report - By George Black

### A helpdesk for Europe

New software will enable problems to 'follow the sun' from one region to another so they can be worked on around the clock

P Oil, part of the UK's largest company Brit-ish Petroleum, is introducing a helpdesk across Europe, based on software from Intercom Data Systems (TDS).

Germany, where it will support point-of-sale and back office systems being installed at 1,300 petrol stations. It is in Germany that BP's long-running Europe-wide Retail Automa tion Project (RAP) is furthest

The petrol station systems and the helpdesk are also now being adopted in the UK, with France, the Netherlands and other European countries likely to do the same soon. Wherever the RAP is rolled out, it is intended that the IDS helpdesk will follow.

Until three years ago, many of BP's retail systems problems were tackled with fairly cumbersome paper procedures. To alleviate this, the company considered developing its own belpdesk system, but decided against It because it would have been too expensive.

The IDS product was chosen mainly because it was rated as more flexible than the alternatives. Mark Waite, a technical manager with the consultancy Warwick and Sons who has been working with BP on

Until three years ago, many of BP's retail systems problems were

implementing the helpdesk. says the IDS software can be

eastly tailored. You can modify it to suit your own business procedures, rather than having to change those procedures to suit the

software," he says. The software was installed on personal computers, first on the Unix operating system and later on Microsoft Windows, at BP's helpdesk in Hamburg, staffed by 12 operators. This function was outsourced two years ago by BP to a local consultancy called Anthros.

The helpdesk keeps an inventory of all the hardware and software in use by its customers. Helpdesk operators can log on remotely to PCs at the petrol stations to try to find out what is the trouble. They have access to data on all earlier calls which may throw light on the problem.

If they cannot resolve the matter on the spot, they can send a fax from their PC to call in expert support.

The system is linked to Microsoft Mail, so that if there is any serious delay there can be an "escalation" of the problem, by alerting management

through an e-mail message. BP's helpdesk in Germany has already taken 40,000 calls and is now logging them at 1,800 a month. On average, a query takes two days to-

In the next one or two years, BP hopes to be able to integrate its helpdesk systems between countries, so that experience of handling calls can be aggregated in an inter-national database and solu-

tions shared. New software from IOS will enable problems to "follow the sun" from one geographical region to another so that they can be worked on around the clock, according to Alan Neil-

son, IDS group director. Last year, BP began using IDS's new data mining product called Infomine, incorporating the Verity search engine, which allows helpdesk operators to imput general questions in natural language and get quick responses from the sys-tem. Mr Waite says this has been extremely useful, particularly for new operators who may know little of previous

dealings on the helpde The IDS system has proved its worth in spotting trends, says Mr Waite. "Before, it was very hard or impossible to identify these trends. For example, there was a printer problem in the petrol stations which was affecting customer service. When we identified this we were able to go to the suppliers with hard evidence and persuade them it was a real problem. Until then it had only been a gut feeling that there was something wrong.

The helpdesk has also helped BP to keep a tighter rein on subcontractors by detailing the work that needed to be done.

IDS is a privately-owned UK company based at Woking. with an annual turnover in 1994 of £5tn. The BP contract has been worth about £120,000

M Help on demand

### Customers count the cost

The helpdesk market has mushroomed rapidly, bringing together so many different strands of technology that every supplier seems to be setting out a slightly different stall. Claire Gooding goes window-shopping

ighty per cent of the cost of owning a system comes after installation, according to research by the Gartner Group.

Client-server installations may distribute power, but they also distribute the support function, which may exist on an informal basis. Findings suggest that support and administration accounts for as much as 14 per cent of the total cost of PCs. Helpdesk tools offer a way of keeping costs

All the above factors have fuelled a market which Gartper estimates is worth \$345m in 1995 (53 per cent growth over 1994) and likely to grow to \$405m by 1997. PC suppliers such as Dell and Gateway have long known the value of good support in selling PCs. But customers are fast waking up to the fact that the purchase is the beginning, not the end of the spend, with sundry upgrades, extras, education and training, and the need for expert support, even if users

only explore a fraction of their software's functionality. it is not easy to measure the productivity which the PC is supposed to create, although one recently-launched product. DeskWatch Expert, from London-based ProMetrics, attempts to do exactly that. Described as a PC management system, it is a sort of desktop tachometer, reporting back to managers on

productivity and technology issues. Tuned to each user-organisation, it can even suggest corrective action such as an upgrade, training, or redeployment of resources.

"What is missing is knowledge of how the technology, and more importantly the user are behaving and interacting at the desktop," says Bobbie Ttoulis, marketing manager at ProMetrics. "If this knowledge were available, the helpdesk would be able to provide proactive support to end users. allowing them to plan resources and address issues before they impact the user."

easy-to-solve problems, while "open" multi-user systems and mainframes pose fewer but knottier problems, often involving systems software. Before client-server systems made it easier to integrate different computers, companies

By a rule of thumb, PCs

throw up a high volume of

often had dedicated support and a separate problem-tracking application for each in-house system. Most organisations now choose to cut the overhead by centralising (or even outsourc-

ing) support. Multi-platform uting has brought a challenge to which most software suppliers have risen. In a field which has 170 or so competitors, there is a big gulf between all-encompassing systems that can address the

protocols on every platform, and the plethora of small products at the bottom end of the market. Some modular systems cost anything from £30,0000 to £100,000, depending on size of the network, while other companies prefer to buy small compartmentalised applications and glue them together

Client-server systems and the standard solution By the mid-1990s, companies

shopping for helpdesk software wanted adaptable solutions. They looked for software based on Oracle, Sybase, Informix, or Microsoft SQLServer, the industry standards that could cope with multiple environments, according to Carter Lusher, Gartner Group analyst and expert on helpdesk solutions. "Software suppliers provided integration as a service at first, but creation of open gateways opened up the possibility for a number of add-on products and extensions that enhanced the capabilities of . the helpdesk - the typical support centre needs access to

whole range of information." Gavin Roach, client-server consultant at IBM, agrees that client-server technology has impacted belodesks in a number of ways. In the past, support staff might have to log on

systems they are supporting. Now, client-server systems can combine a number of different systems and their front ends, all working from one screen. For example, either they simulate the old systems,

and off between different

or support new code which performs the integration at application-level, producing all the information they need from multiple clients and servers through a single screen. "Intelligent" tools track problems by referring to a

database, and recognising "clues" so that the helpdesk staff can track down the appropriate solution which may bave been reached and stored on a previous occasion. These products can spot problem pat-terns and "predict" answers.

Examples include Remedy. Bendata, Astea, Magic Solution and Target, recently acquired by Applix . Artificial Intelligence has found a natural home in the helpdesk, and the expert shell from Slough-based Inference is the basis of several products.

Remedy is widely used in the UK, servicing large-scale sites such as Chevron where two sites are served from one helpdesk, servicing a thousand users. "Inference is interesting because it has re-invented itself from a general purpose Αĭ

Continued on next page

■ Electricity supplier: application report — By Claire Gooding

## Handling 4m calls a year

Norweb had to find a way of supporting more than 2m customers from one centre instead of six. It turned to an unusual source; information management consultants TMS

inding a call centre that could cope with an calls annually was a priority for Norweb. The UK's north west electricity supplier, recently taken over by sister utility North West Water, has a territory that extends from the Scottish border to north Chesh-

Centralising customer sup-port for its 21m customers in one centre posed specific problems, according to Ken Harrison. Norweb's domestic customer services manager who looks after the new customer centre at Bolton.

"We had recently centralised

into one customer centre in Bolton, from six centres scattered across the north-west, as a result of the Littlechild distribution price review. We wanted to be ready for the 1998 opening up of the market, so it was important to built a 'centre of excellence' to ensure that we delivered the right levels of customer service. We had various goals and aims, some set by the regulator, such as missing appointments (we pay \$10). but we had our own internal goal: to answer 90 per cent of



Ken Harrison: We wanted to be ready for the 1996 opening up of

our calls in an average of 20

seconds. "The existing Aspect call centre system was upgraded to the new Bolton centre, where 200 staff at any one time

found when we centralised was that instead of dealing with a familiar location, they were dealing with much larger areas. So it was important to know the appropriate contact for a query in Carlisle, and a similar one in Buxton.
"Norweb needed a tool that

One of the problems we

would provide a quick-reference procedure. The computer services development manager tware, now supplied through TMS, one of the UK's leading information management con-"We had looked at one or

two others, but this was particularly user-friendly, and was appealing because it could be supported in-house by ourselves with the minimum of training. At around £30,000 it represented better value than some other solutions we saw."

says Mr Harrison. One application is an internal directory, which had to be searched after receiving a call from a customer. "It's now onto Assistware so that they can quickly click on to the

name, and find all the details

thing's outcker and easier for the customer service representatives," he adds. Staff from Assistware's Dub-

they need for contact. Every-

lin headquarters helped with the installation and configuration in October 1995, and gave project managers a month's training. The system currently runs 10 applications, including the telephone directory, an information system to broad-cast the adjates in company projecture and a system to dear with inquiries arising from the £50 rebate for domestic customers that results from the National Grid flotation. This attempts to anticipate the most likely incoming questions and provide stock answers.

"It was easy to install and configure, and in fact the 200 or so staff who use it only took a few minutes' training, each, partly because of the familiarity of the PC and Windows based environment. We're delighted with it, and we can see from the continuous measurement we perform that it. has helped us get closer to our targets," concludes Mr Har-

- X. = X

### Continued from facing page: when the repeat problems operations. "The role was created when we tried to figure Mr Orton analyses the numout how to manage all the

Command Theatre's rapid service

There were only two possible choices that used Entergy's tomisable Unix-based database such as Sybase or Oracle. using Pentium workstations on the helpdesk. It chose Vantive. a tool from Santa Clara-based Vantive Corporation, built specifically to integrate with other third-party software.

The hardware supported at Entergy ranges from PCs, routers, customer applications, periprerals, including support for TSO and other mainframe tools.

"Our helpdesk people do more at the first-point resolution point than most: they handle a wider variety of things. If your database of resolutions matches your problems well enough, agents can find resolutions done by other agents

ber of calls coming in, and the number of problems electrons cally passed down to the second level. "We also analyse the individual calls of agents. After the fact, analysis reveals how difficult or esoteric the call might be. If they can't handle it in three minutes they have to pass it on. To keep your service levels consistent they must not iam up the first level: high resolution rate is impor-

tant. A morning management meeting looks at flagged problems. Anything that is not routine gets filtered through and the management team does an analysis of problem types and

that causes. Entergy's management approach is unusual: ar "officer of the day" is in charge of crazy things happening in the environment. We couldn't find a single structure that would fit permanently the way the organisation was changing. We had to find a dynamic organisation, a structure that would move with the environment.

Focus on support

"We didn't want to duplicate responsibility, so the officer of the day took charge: he or she would respond and plug in the required skill and then move it out. There's always someone un-house who has a responsibility to get it solved, though they might have to go back eise-

where." The red neon announcement above the support centre announces the "Entergy Command Toeque". Other facilities include large-screen custom-designed appartors, and a conference room. The emphasis on good sup-

port has made this a sought-after place to be: support staff get an inside edge on the way the company operates. The very people who were the most rejuctant to take part - the business representatives - now emjoy their three-month stints. Their tasks include follow-up "care calls" to see if internal customers are satisfied with

tice service. "Problems get resolved better if there are good relationships it a absolutely immune to changes in the organisation - it just flows right with at." concludes Mr Orton "It's definitely improved the attitude to the people who work in that environment - their sense of

## A service for the 'New World'

Escom's expansion is mirrored by the volume of calls which ICL fields

orbus, the wholly-owned service and support arm of ICL, the UK-based and Fujitsu-backed computer company, has discovered the New World, Mr David Hesketh, bustness manager for consumer products at Sorbus, characterises a whole line of service work as "New World busi-

Last year, Sorbus turned over £568m in Europe, of which £318m was contributed by UK business. One growing line of revenue is the provision of helpdesk services to other hardware and software ven-

The term "helpdesk" is misleading. Keeping computer-users happy requires much more

than a pleasant telephone manner. A user query can be astonishingly banal or horribly technical. But as the personal computer has moved firmly into the arena of consumer electronics, any support operation has to reflect customer expectations. To sell high technology to

the general public, suppliers must be able to field a great amount of queries. Setting up an operation to deal with this does not suit many vendors, which is why the German personal computer retailer Escom uses ICL Sorbus to provide its helpdesk. Since 1987, Escom has expan-

ded to 445 stores in 10 European countries, becoming the third-largest PC supplier in Europe with a turnover of DM2.35bn.

Escom has also expanded rapidly in the UK, moving from 27 stores at the start of

1995 to 227 by the end of last year. As it moved beyond 100 outlets, Escom had to decide how to structure a support service for sales of more than

It began discussions on how to handle this big increase in

The contract is worth between £2m and £6m to ICL

shop numbers with ICL in April 1995. On May 11, ICL its centre in Footscray, Kent. The contract is worth between £2m and £6m to ICL, depending on the volume of inquiries. ICL boasts a wealth of experience providing helplines to

commercial users of IT.

be disastrous to insert the model of a corporate helpdesk into the Escom contract - "the consumer business is very different. We had to set this up from scratch. The person who handles phone calls is also responsible for diagnosing whether it's a software prob-

If a home visit is required, the field engineer cannot rely on having someone to open the door at any time of the day. Corporate customers employ reception staff, while domestic consumers are often only available out of office hours - so scheduling a practical time for a visit is a critical part of the helpdesk's work.

lem or a hardware problem".

Escom's expansion has been nirrored by the volume of calls ICL fields. In January, the Footscray facility handled 50,000 calls for Escom.

Given the nature of the

prising number. Some people do need advice on how to switch on their brand-new PC. Between 85 per cent to 90 per cent of calls are dealt with over the phone.

Mr Hesketh speaks of his telephone staff with evident pride, but even the most expert technical support staff need some back-up. ICL devised a Knowledge Based System, or KBS, to keep up with Escom. The KBS is a program that contains all Escom products and allows staff in Kent to summon up the precise part of the system that concerns each There are now 150 ICL staff

dedicated to the Escom account. Hesketh's Sorbus unit handles helpdesk facilities for other clients, including Micro-



h speaks of his telephone staff with evident pride but even

### ■ Help on demand

## Newcomers liven up the helpdesk marketplace

Continued from previous page

company to a specificallyaimed helpdesk provider," says Duncan Brown of Oyum, author of of the report called Ovum Evaluates Help Desk Tools. "There are other computer-based reasoning products on the market, including a range from the Molloy Group, called Top of Mind."

Other case-based systems include HDE, now supplied. after several changes of hands, by UK-owned Strategem Group. Built specifically for IT centres, it uses case-based reasoning designed to maximise the effectiveness of the first-

Competing with Remedy. Utopia, and Quetzal, prices start at \$10,000 for a small system of five seats, and go up to 150 seats. Financial users include Lloyds. NatWest, Bradford & Bingley. It is a busy marketplace, livened-up by relatively new companies such as Answer Systems, Remedy and Software Artistry (the latter two went public in March 1995, and Platinum technology bought Answer the following month).

Established suppliers such as Bendata Management Systems. IBM and Magic Solutions rewrote their offerings in response to the challenge.

with their roots in customer

arena. Carter Lusher cites Prolin, Vantive, Scopus and Quintus as interesting companies that have put together suites of modules with a wide breadth of functionality - "customer service, logistics, service track-

ing, and other features. Others

Alan Neitson: 'People judge on the

have a good set of tools for integrating with the internal architecture, such as Remedy - they all have a slightly different story but the common theme.

Fast growth is common in Now software developers the helpdesk sector; for example, since Intercom Data

ish software company, launched its Helpdesk for Windows in June 1994, it has sold 2,500 licences and brought in revenues of £2.6m.

Alan Neilson, group director, now claims IDS as one of Britain's leading suppliers, in the top 15 per cent, with 9m income and employing over 100

"We saw a niche five years ago, and after extensive research, talking to 35-40 banks and retailers, we decided to focus not just on internal software and hardware helpdesks, but on supporting business procedures, with a large element of workflow and telephony," he says. Mr Neilson argues that every

organisation has woken up to the aspect of customer lovalty: Quality of response is very difficult to measure, but because customers have more choice, and it's easy to move on. People judge on the level of service - price is no longer the main concern. That means putting procedures and practices in place that resolve problems at source." One IDS customer, the

savings bank TSB, uses the system for regulated complaints and concerns management. It has been able to uphold rigorous new standards for responding to customers'

calls and controlling their pro-

their regulatory body, the Personal Investment Authority,

"The system set up "demons" based on business rules, such as, if it is a life policy, then send out a certain set of documents. We find that forward-looking organisations one such user is TNT – are focusing on their core business by outsourcing to third par-

ties," he says.
"They use helpdesk for Windows to monitor third-party response-levels to show how effectively they are performing against their service level agreements. That's a real money-saving that can be quantified, because of re-negotiation or penalty clauses in contracts," adds Mr Neilson. Few helpdesk systems

embrace "legacy" systems, although one that does is USowned Peregrine Systems of San Diego, which shares its roots with IBM's Infoman problem-resolution system. "Our automation links to legacy platforms such as MVS.

even when running on Unix boxes, makes it possible for us to pick up IBM inventory data, such as from IBM's NetView, which is something few products are able to do." savs Andrew Walley Peregrine's UK and Europe general manager. The Peregrine Network Man-

agement Systems, now sold as

runs on multiple platforms, and supports SNA. Unix. Novell and others. Sainsbury, the UK food retailer has integrated the Peregrine product through

emphasis on large-scale

systems and high volume of

enquiries, although it now



Malcolm Fry says 'just-in-time' training is more useful than lised training

out its stores, (see report, right). Other users include Lufthansa and ABN Amro. Good support goes hand in hand with training, a factor that has played a large part in some products. UK company Prince, based in Hammersmith, prides itself on a pro-active attitude to support.

Because we come from a training background, our approach to support is that is should be knowledge transfer rather than crisis manage-ment," says Nigel Burnford. operations director for Prince technical services.

"As the problems come in. we do 'root-cause' analysis and try to provide long-term solutions. For example, at Glaxo, a large proportion of Word enquiries came in to do with mailmerge facility: mailmerge had been excluded from the training programme because mailing had been handled externally.

"Then the department had taken mailing in-house, but without training. A one-hour training workshop fixed the problem

Malcolm Fry, an independent consultant on customer service support, describes "just-intime" training as taking place on-demand, fully in the context of business use, and therefore more useful than generalised training: "This form of consultancy can be cheaper, too: one client worked out that JIT questions cost around £350,000, whereas formal training would have cost £600.000."

Ovum's Duncan Brown sees training as a separate issue, however. "I'm not convinced that just-in-time training really happens. It's best practice,

the helpdesk suppliers is international, 24-hour support that "follows the sun." an issue already addressed by a few outsourced help organisations.

rather than common practice."

The way forward is presaged by customer-service applications such as the international Dealer Communications system implemented by EDS for General Motors, which channels enquiries from 14 countries in 11 languages through a centre in Antwerp.

Astea's 1995 contract with AT&T established its Dispatch -1 systems as a worldwide standard for customer service in 108 countries

Other IT-based companies. such as Canadian software developer Speedware, are using the Internet for global customer support. "Internationalisation is an

issue for relatively few companies, because only a few operate in a global environment helpdesks will be national. even if the applications software they are using is global, predicts Mr Brown.

Next month: the main theme of Software at Work in the next issue of FT-IT Review on Wednesday, April 4, will focus on statistical analysis and modelling packages in sectors ranging from finance to manu-

### Streamlined management

system at Sainsbury

Sainsbury, the UK food retailer with 350 branches, is one of the first retailing businesses in Europe to move towards an enterprise-wide service management system for its complex computer network, writes Michael Wiltshire.

The company installed its first computer in 1961 and by the mid-1970s had two mainframes. In the 1980s a semidistributed computing network was installed and by the early 1990s there were PCs in every branch, allowing more advanced re-ordering systems.

Mr Martin Wright, technical infrastructure manager at Sainsbury, says the company recognised that a new support structure and service man ment strategy was needed to keep track of all its PCs. checkout equipment and configuration data from main-

frames and minicomputers.
"A high level of quality IT service is the only way to ensure that the queues are short scanner downtime is minimised and store shelves are kept well-stocked," says Mr Wright.

"At one time, in-house Tr staff used to handle individual system problems, but for the new and complex environment, this control function was no longer adequate. For example, to access just one application through a PC might involve going through eight different layers of soft-

### Better control

The solution was found in a Peregrine Systems' Service Centre which could recognise all the company's desktop PCs checkout scanners, and oper system computer platforms.

In particular, the new system has the facility of "cousolability" - or the ability to view everything from one console, while allowing the system to expand to meet future

The new Service Centre streamlines the helpdesk and problem management process giving greater control over the IT system, says Mr Wright. "There is probably no other

industry where data process ing is more critical to the business than in the retail sector." The Peregrine system was

developed in San Diego, California. The company's European offices are based in the UK at Richmond, Surrey.

### AND IT SERVICES MARKET

Accounting Software

3 Activity & Contact Management

Management Software

4 Address

5 Application So!tware

Software Architects Int'l Ltd The National Technological Park, Limerick Tel: 00353 61 338 118 Why do some of the world largest corporations use Cashbook, Cash & Treasury Management provides

Electronic Bank Reconciliation and Treasury Forecasting, CASHEOOK compliments Corporate accounting systems which typically lack Cash management functionality, CASHBOOK fully Hardware AS:400 & Client Server

key business solutions such as Automatic

Geographical Coverage

BPCS™. Soltware 2000™. Hoskyns Financials™

**Systems Union Limited** 1 Hammersmith Broadway London W6 9DL

Company Description SunSystems is the complete, international client/server business solution from Systems Union. installed by over 10,000 companies in over 160 countries, its global application is enhanced by: full

Tel: 0171 312 4545 Fax: 0171 312 4546

nulti-company and multi-currency processing and vailability in 22 languages.

PC-Lans, Unix, Vax, NT, Windows 3, Windows 95 Applications SunAccount, SunBusiness

**KAI Computer Services Ltd** 6 Kings Exchange, Tileyard Road London N7 9AH Tel: 0171 609 3746 Fax: 0171 609 3742

ACTIVITY AND CONTACT MANAGEMENT RAPID RESULTS WITH OCTOPUS Customised to your needs, OCTOPUS can deliver instant solutions. Appointments, telephone calls, letters, and task delegation are connected to a contact. With the total history you are in charge of all developments, able to evaluate productivity and

**EXCELLENT SUPPORT** Extract top class performances from your network with KAI. We design and implement the optimal solution for your workplace, support and maintain

**PUTS YOU IN TOTAL CONTROL** 

Hopewiser Ltd 187 Hale Road, Hale, Altrincham Cheshire WA15 8DG Tel: 0161 980 6001 Fax: 0161 904 8640

the UK. As a Royal Mall Value Added Reseller, Hopewiser can provide software capable of postcode verification, rapid address input, mailsort and barcoding. With fourteen years experience in address management, Hopewiser provides system specifically written for different platforms. All

Hopewiser software is modular, allowing clients to

Geographical Coverage Hopewiser provides software for large throughout the UK. III HOPEWISER

buy just the functions they need.

J D Edwards (UK) Ltd Oxford Road, Stokenchurch, High Wycombe Buckinghamshire HP1A 3AD Tel: 01494 682700 Fax: 01494 682699

J D Edwards & Company is the industry le S Debwards a Company is the industry leader in supplying application software and solutions for the IBM AS/400 market. Developed using CASE tools, J D Edwards is currently developing a new generation of software products, which will operate on a variety of platforms.

J D Edwards' fully Integrated solution is for cross-

Industry and industry specific applications including general business, financial, manufacturing,

distribution/logistics and energy and chemicals. A global solutions provider, J D Edwards has more than 3,800 customers in 91 countries with multinational functionality including multi-currency and language capabilities.

**IDEdwards** 

14 CASE Tool (Computer Aided

> Software Engineering

Cenditioning

15 Client Server Accounting Distribution

Software

### Fujitsu General (U.K.) Co. Ltd.

154 Great North Road, Hatfield, Herts. AL9 5JN

Cost

### Getting fresh air indoors....

....is a breeze

If you think air-conditioning is an expensive luxury or a long and complicated process to install, then you obviously haven't been introduced to Fujitsu's new 45,000 BTU/h cassette unit.

The 45,000 BTU/h fits unobtrusively into any false ceiling and features knock out panels that can provide fresh or recycled air to even the furthest corners of a building. This means that additional rooms may be linked to the system. It also features a 3 phase operation with reverse cycle heating options.

But the 45,000 BTU/h is just one of a wide range of air conditioners from Fujitsu. As well as cassette units they include floor standing and wall, window or ceiling mounted models, all of them neat, unobtrusive and stylish. They feature a whole host of technological innovations such as infra-red remote controls, a super quiet action and a unique multi-directional air flow adjustment system which ensures an even distribution of air in every direction. There is also a choice between units which supply cool air and those which offer both cooling and heating options.

If you'd like to know just how much of breeze it is to get fresh air indoors, telephone 01707 272841, Fax 01707 273111 or write to the address above.



Lincoln Software Limited Mariborough Court, Pickford Street Macclesfield, Cheshire SK11 6JD Tel: 01625 616722 Fax: 01625 616780 Email: info@ipsys.co.uk Web: http://www.ipsys.com

Lincoln Software produce a range of Meta-CASE and CASE tools for large scale three-tier client/server application development. Our Object IE product is an object oriented, full life cycle tool which includes full C++ Code Generation and Database Generation for Chacle, Sybase and Informic Our took bridge the company. business requirements and IT.
Hardware/Competibility
Open VMS/Solaris/Sun OS/HPUX/AIX/Microsoft
Windows

IPSYS Toolbuilder, Object IE, HOOD, SSADM

Lawson Software

AS/400, RS6000, HP9000, DEC Alpha, Sun,

LAWSON

Applications

SAN MANCHEN

om the top

Han Can

Section 1

ture

. . . . . 0.00

. .

- -

重

----

. . . . . .

· ·· : `

عثماء أبابأ

10 mg 152

- - -

. .

= 4

10 mg

17 Client/Server 18 Colour Violitors

19 Data -Management

20 Distribution, Manufacturing . Solutions

23 Electronic Document Management

Software

24 Electronic

... Computing

Services

**25** Enterprise

September 1995 September 1995

31 Helpdesk

Service

33-34

Intranet

Provider

35-Mannacurino

8 Supply

Chain

36 Multi-media

Solutions

Management.

Software

Applications:

Mail & Remote Mail &

16 Client Server 16 JBA Needles House, Birmingham Road Studley, Warwickshire B80 7AS

Tel: 01527 496444 Fax: 01527 496230 JBA Guidelines is the complete software development environment packaged to suit the needs of the individual through to enterprise-wide application software developer. With its intuitive and natural interface, Guidelines enables the creation of scaleable, network-centric applications that are destined for multiple target platforms, including OS/2, Windows, AS/400, UNIX and IBM Maintrames.

**Hardware:** Multi-platform Geographical Coverage: Worldwide Applications: System 21 Manufacturing, Financial, Customer Service & Logistics with specific software for the Drinks, Apparel, Food, Automotive, Plant, Tool and equipment hire

21 Microgen UK Limited 21 Document Standard House Management 16-22 Epworth Street, London EC2A 4DL 22 Electronic Tel: 0171 838 0536 Fax: 0171 588 1031 · Commerce

Cost: Available on request

Microgen: Managing Information For Business Microgen UK Ltd offers a range of Pan European business services for improving business efficiency. Microgen Memory: Storage, access and retrieval of computer generated material. Microgen Chronos: Sales debtor management

and control. Microgen Intext: On demand publishing services for business critical documents. Geographical Coverage Pan European.

**Applications** Finance, training, banking, utilities, local and

central government. Microgen

27. Dun & Bradstreet Software 26 Entérorise Holmers Farm Way

wide High Wycombe **Applications** Buckinghamshire HP12 4XU Tel: 01494 424140 Fax: 01494 424240 27 Enterorise Dun and Bradstreet Software is one of the world's wide Service Top Ten software vendors. We provide integrated workflow-enabled business applications for Management

financial, human resource, procurement, 28 European information management and manufacturing/ distribution activities. The fully distributed ACCOUNTING & Business architecture allows companies to distribute data, workflow and business processes across the enterprise. 29 Finance Hardware/Contratibility:

UNDCHP/IBM/SUN/Digital/DG/IntelNT Management Geographic Coverage: 30 Help Desk/ Customer Operations in 41 countries with installations in over 60. **Applications** Across industry Service .

and commerce. Dun & Bradstreet Software Software

31 Sunrise Software Limited

Surrey House, 34 Eden Street Kingston Upon Thames, Surrey KT1 1ER Tel: 0181 546 7000 Fax: 0181 541 4262 Richmond - Helpdesk management software for Internal IT and External Custom

Support Helpdesks Windows interface, call logging and tracking, call logging histories and powerful knowledge base. tory management, service level agreement, third party monitoring and alerts, full security, e-mail integration, comprehensive administration

Hardware/Compatibility IBM PC, Windows, Windows 95, NT or compatible. Geographical Coverage UK: 600 Corporate Sites. World-wide: 650 Corporate Sites

Knightsbridge House, 197 Knightsbridge,

Price on application

Sunrise

36 First Information Group/ Flag Towards

Software Tal: 0171 393 3000 ompany Description espoke multimedia business to business 37 Network Connectivity solutions. The Consumer Division, FlagTower™, publishes highly acclaimed interactive

38 Networking documentaries combining stunning graphics, text and animation with a unique audio visual narrative es include The Space Race, World War I, 39 Networking World War II, War in the Pacific, Great Generals of Products & the 20th Century and A History of Medicine. Mardware/Compatibility Multimedia IBM PC and compatibles Services

Geographical Coverage 40 Outsourcing World-wide Cost Single disk: £29.99

Double disk: £39.99

**Flagiower** 

Our blue-chip customers have multiple outlets/branches and/or mobile sales, service or managerial personnel who require fast and costeffective access to and from central data. RemoteWare's Communications Manageme

Management everyday. tware Compatibility 44 Training & OS/2 & NT central server Consultancy DOS, Windows, OS/2, Unix remote nodes

45-46 Telecommu nications

44 Training &

45 Workflow

Automation

Consultancy

Application

Ali market sectors

First Alternative

Internet and World Wide Web, UNIX, Solaris™, C. C++ and other software developer training are our core products, providing training services to leading UK and European companies for over 6 years. Public and bespoke courses, either at our Harwell

45 Workforce Geographical Coverage: Management LIK and Europe

> Cost: Cell 01235 820011

Tivoli Systems Software S.A.

22, rue Juste-Ofivier CH-1260 Nyon, Switzerland Tel:(41 22) 994 94 94 Fax:(41 22) 994 94 95

The Tivoti Management Environment ' (TME) is composed of powerful, integrated software products which enable companies to centrally manage their distributed systems and applications. TME is a proven leader in the field of client/server systems management and has been widely accepted as an industry standard. Many Fortune 500 companies and government agencies worldwide have come to Tivoli to make their client/server systems work.

Hardware/Compatibility Unix, NT & Windows

Geographical Coverage Worldwide support

Tivoli

22 Elcom Systems Ltd LANTEC House, Langley Business Centre

Station Road, Langley, Berks SL3 8YR Tel: 01753 777738 Fax: 01753 777727 Elcom Systems is a developer of ELectronic COMmerce systems. Elcom's suite of products include PECOS, a Personal Electronic Catalogue & Ordenna System, PECOS is a powerful sales & marketing tool, with an easy-to-use front end. Uniquely, the system links dynamically from customer to vendor's sales order processing

Hardware/Compatibility tront end - 486/25 4 RAM, Win 3.x, Win95 or NT. UNIX back end Geographical Coverage

International Applications ELCOM SYSTEMS LTD
The Leader of Electronic Marketine Scholing Multi Product-

27 Ultracomp Ltd

Ultracomp House, Pinchili Road, Crowthorne, Berkshire RG45 7JD

Tel: 01344 779333 Fax: 01344 779385 Ultracomp's Red Box system offers a uniquely integrated set of application modules including. Help Desk, Problem Management, Configuration & Change Management. Red Box works with System and Network Management tools to provide IT Service Management solutions to meet business

Hardware/Compatibility Windows PC clients & Unix Servers; SUN, HP, IBM,

BusinessNet Ltd

email: sales@businessnet.co.uk

BusinessNet offers City firms permanent, cost

fiective and secure access to the Internet.

Unique Plug-and-Perform™ Internet solutions

across any leading platform, integrate world-

total package; available on fibre-optic leased

beating products and services to provide a

Contact BusinessNet for one-stop Internet

connection. Business and technology spoken.

Ringdale UK Limited

Ringdale House, 56 Victoria Road

Ringdale UK is a leading designer, manufacturer

and plotter market. Their portfolio has now

and fast network adapter cards.

All major systems and platforms

Hardware/compatibility

Geographical coversor

Workiwide

and supplier of connectivity products for the printer

expanded to include their range of 100baseT fast

ethernet products. Ringdale UK currently produce a

range of advanced printservers, fast ethernet hubs

Tracker Software (UK) Ltd.

Tel: 01628 488866 Fax: 01628 488855

Winter Hill House, Marlow Reach,

Tracker Software's award winning Tracker 2

contact management program for Windows is

totally integrated, very powerful, yet easy to use. It

encompasses all the flexible features you'd expect

from one of the world's leading contact managers,

and gives you rapid access to your customers and

prospects through a full contact database, history,

time management, e-mail and word processing.

Ten years worldwide usage and 250,000 + users

make Tracker the first choice for every business.

Station Approach, Marlow SL7 1NT

🛂 RINGBALE

Burgess Hill, West Sussex RH15 9LR

Tel: 01444 871349 Fax: 01444 870228

lines or through exclusive high-speed

inhical coverage

The City of London.

.http://www.businessnet.co.uk

Tel: 0171 522 0533 Fax: 0171 522 0534

Geographical Coverage Worldwide

83-85 Mansell Street,

London E1 8AN

ULTRACOMP...

Sn

<u>@</u>



200ications

Applications

Call 01260 296223 for a FREE INTRAnet white paper

www.intranet.co.uk

JSB Computer Systems Ltd, Riverside, Mountbatten Way, Congleton, Ches. CW12 1DY Tel: (01260) 296200 Fax: (01260) 296201

**Cray Communications** 

Caxton Way, Wattord Business Park

Products comply with Industry Standards

Geographical Coverage

Cray Communications has 55 sales offices in five

is local and wide area networks converge,

continents and employs over 2,900 people worldwide.

organisations require a single, enterprise-wide network that will provide transmission of voice, data and image. Cost Dependent on

Cray

Bracknell, Berks RG12 8GD Watford Herts WD1 8XH Hotlines 01344 55555 Fax: 01344 303093 Tel: 01923 259259 Fax: 01923 259260 Cray Communications designs and manufactures a switching, routing, and voice and data integration. With a wide range of experience, Cray Communications has the proven ability to integrate these technologies into a single enterprise-wide network.

Hardware compatibility range of networking technologies including high speed Gandalf is an international manufacturer of high

performance networking products, serving the needs of blue chip, medium and small companies worldwide. Leading products include low cost of ownership remote access and concentration products, supporting teleworking, internet projects and regional/head-office networking requirements. Call our hotline for details.

Gandalf Digital Communications Ltd

Gandalf House, Doncastle Road,

Geographical Coverage Worldwide

🧇 gandalī

Heroix Corporation Ltd

Yeomans Court, Ware Road, Hertford SG13 7HJ, England Tel: +44 (0) 1992 500006 Fax: 01992 500065 ny Description

Can you reduce the cost of managing your systems and provide users with better service and increased productivity levels? ReboMon can. This powerful software solution detects and automatically formulates the correct solutions to system problems Herolx Corporation is a well established company with a proven history in system management services and solutions for VMS, UNIX-DEC, HP, IBM, SUN & Windows NT.

Worldwide

Users

HEROIX

approx. £150 per user Include 16 of the Times Top 30 Companies.

Telehouse Europe Coriander Avenue, London E14 2AA

Telehouse provides a range of high quality telecome FM services from its unique purpose built centre in

can be monitored and maintained 24 hours a day by Telehouse specialists.

authorised personnel. TELEHOUSE Linksaver: A cost effective, managed global telecoms link for international

Geographical coverage: international

MR-Data Management Group Pic 47 Bastwick Street.

Tel: 0171 250 3377 Fax: 0171 250 1873

Company Description MR-Data Management Group provides comprehensive facilities management and out-

sourcing for data management requirements. Services include: image and data capture, electronic printing, secure off-site data storage and market leading Memex software. Hardware

All major systems Geographical Coverage

UK, USA, Middle East **Applications** 

DOCUMENT SOFTWARE.

FilePlus Europe Ltd

IIYAMA (UK) LTD

6-8 VIEWPOINT, BABBAGE ROAD

Tel: 01438-745482 Fax: 01438-745483

STEVENAGE, HERTS SG1 25Q

liyama (UK) Ltd manufacture a range of award

financial periods have placed liyama as the No.1

particularly strong in the corporate sector, sulting

T industry. Significant growth in the last two

supplier of 21" monitors. Growth has been

Windows, OS/2 and other GUI software.

15", 17",21" HIGH RESOLUTION

COLOUR MONITORS

Applications:

Global

Geographical covers

ALI. IMAGING. GRAPHICS.

winning high performance colour monitors for the I

Coworth Park House Ascot, Berks SL5 7SF Tel: 01344 875050 Fax: 01344 873622 email: 100137,2021 @compuserve.com

Product Description File Plus Professional 2 is State-of-the-art Document Management Software for the Professional Office environment. This Windows xiatform software indexes either scanned or DDE Linked files, stores images, searches for, retrieves and prints documents in the fastest, most efficient, secure and convenient way possible.

Stand alone or Networked PCs running Windows 3.1 or higher, 486 DX2 66Mhz, 8Mb RAM.

**International Business Systems** 

Borehamwood, Herts WD6 1JN Tel: 0181 2075655 Fex: 0181 2076770

From £1.995 stand alone or from £2,995 for a 5 User Network system

1 Imperial Place, Elstree Way

Company Description IBS is a wholly owned subsidiary of IBS AB, a

Swedish public company and one of the leading software suppliers with over 3000 customers worldwide. The ASW Portfolio is a full range of

application software with a GUI interface provid innovative solutions to today's business needs;

Hardware AS/400 Client Server, Windows and OS/2 GUI

**Coverage** 65 Offices in over 30 countries worldwide.

inancials, Distribution, Inventory,

including Pan European requirements and EuroVAT acting in a true Multi currency environment.

All image and computer data.

Login Solutions Ltd Tradelink House, 25 Beethoven Street London W10 4LG Tel: 0181 960 7979 Fax: 0181 960 0858 email: enquiries@login.co.uk Login Solution Ltd provides Electronic Mail,

Remote Computing and Personal Organiser solutions to both large and small busine throughout the UK. Recognised as one of the UK's leading e-mail specialists, Login Solutions has the unique ability to provide tallored e-mail and remote computing solutions enabling companies to make effective use of their existing or newly installed e-mail systems. Senior executives, sales people or teleworkers will greatly enhance their ability to work away from the office as a result of the training and consultancy offered by Login Solutions.

Software 2000 UK

Tel: 01628 850850 Fax: 01628 850243

Soliware 2000 thrests a compret relative sales on the provide and human resources software designed exclusively for the IBM AS/400 server and related technologies, using client/server and object oriented technologies to provide easy-to-use icon and graphical screens and integration with popular windows spreadsheet and word processing

packages and taking into account all the requirements of the multinational corporation. Software 2000 has over 1200 clients worldwide.

IBM AS/400, Server, Client/Server - OS/2, Windows, MAC.

UK, Mainland Europe, USA, Australasia, Asia, Sth Airica.

The INTRAnet Company

management & human resources £25,000

Cost

Entry Level Price

Boume End, Bucks SL8 5AJ

Crosby House, Meadowcank, Furlong Road,

re 2000 offers a comprehensive suite of financia

Geographical coverage: International

**Company Description** 

Geographical Coverage

Totally integrated financial



**Applications** Integrated solutions for manufacturing industry MFG/PRO, Progress, Oracle.

Hardware

UNIX, Open systems

Geographical Coverage

Worldwide mutti-lingual

기타 SSA Frimley Business Park Camberley, Surrey GU16 5SG Tel: 01276 692111 Fax: 01276 692135

20 Minerva Industrial Systems plc

Tel: 01242 242566 Fax: 01242 236107

Bovis House, Lansdown Road,

Cheltenham, Glos GL50 2JA

GUI, OO, RDBMS, 4GL, 200+ platforms

**Company Description** 

Company Description With over 7,000 client implementations, BPCS Client/Server represents the world's largest installed base for a single enterprisewide product line addressing integrated process and discrete manufacturing, supply chain management, and global financial applications.

As 400, RS 6000, HP9000, Digital Alpha.

Coverage Over 40 offices worldwide.

SSA

30 IDS (Intercom Data Systems)

Kings Court, Church Street East Woking, Surrey GU21 1HA Tel: 01483 755205 Fax: 01483 729131 HeloDesk for Windows is a high quality and extremely configurable customer interaction

software package for supporting customers. whether they are internal or external. It is the astest growing support system in the UK today with over 2,500 installed since its launch in June 1994. The products is fully Windows compatib Hardware/Compatibility Any hardware platform as the server & any Acrosoft compatible platform as a client.

Geographical coverage IDS are based in Woking, Surrey and have over 350 customers throughout the UK and internationally.

Applications Ideal for IT help desks & customer support centres.

Price on application

HelpDesk

CGI (GB) Ltd

Rossmore House, 8 Newbold Terrace Learnington Spa, Warwickshire CV34 4JX Tel: 01926 883831 Fax: 01926 450034 email: CGI@CGIGBLTD.demon.co.uk

LS/400 is IBM's leading suite of Manufacturing, Nstribution, Assemble to Order and Financia systems for the powerful AS/400. It is specifically signed to meet the growing demands of national and international companies and integrates all operations in the supply chain from inbound to outbound logistics, within an organisation. LS/400 provides total support for numerous manufacturing plants, distribution centres and warehouses, whether organised independently or as a network. Hardware/Compatibility

Geographical
UK, Europe and USA Applications
Total Supply Chain Integration Cost P.O.A. (range £35,000 - £500,000)

8

40 CSI (Computing Services for Industry)

Canal Place Leeds LS12 2DU Tel: 0345 010105 Fax: 0113 243 6950

CSI Outsourcing specialise in providing high quality tully managed systems for companies using IBM midrange equipment for key business applications Service levels to systems users are guaranteed. Services can be based on customer's site or at a CSI location and provided 24 hrs 365 days a year.

Hardware/Compatibility
AS/400 Ops. Applications. Tech support, LANs. WANs, Desk-top

Geographicai Coverage Service from Datacentre in Nottingham and eight other UK locations



**SOFTWARE** MARKET REPLY SERVICE

Should you require further information on any of these advertisers, simply fill in the coupon and return it to: Box FTIT-2 96 Financial Times, One Southwark Bridge, London SE1 9HL

Company Name: ..... Position in Company:....

Telephone Number:...

3 KAI Computer Services Ltd. 4 Hopewiser Ltd.

1 Software Architects Int. Ltd.

2 Systems Union Limited

5 JD Edwards (UK) Ltd. 6-13 Fujitsu General (U.K.) Co. Ltd. 14 Lincoln Software Limited

15 Lawson Software

**16** JBA 17 Tivoli Systems Software S.A. 18 liyama (UK) Ltd.

19 MR-Data Managemen Group Plc 20 Minerva Industrial Systems Plc

21 Microgen UK Limited 22 Elcom Systems Ltd. 23 FilePlus Europe Ltd.

24 Login Solutions Ltd. 25 SSA

26 Dun & Bradstreet Software

27 Ultracomp Ltd. 28 International Business Systems 29 Software 2000 UK 30 IDS (Intercom Data Systems) 31 Sunrise Software Limited 32 BusinessNet Ltd. 33-34 JSB (The INTRAnet Company) 

35 CGI (GB) Ltd. 36 First Informatin Group 37 Ringdale UK Limited 38 Gandalf Digital Communications Ltd

39 Cray Communications 0 B 41 Intellinet Ltd. 

42 Tracker Software (UK) Ltd. 43 Heroic Corporation Ltd. 44 First Alternative ū

45-46 Telehouse Europe

for prices/dates

41 Remote & Mobile Solutions 42 Sales & Marketing Software 43 Systech

Intellinet Ltd. Broadsword House, 2a North Quarry Business Park, Skull House Lane, Appley Bridge, Lancashire WN6 9DB Tel: 44 (0) 1257 254000 Fax: 44 (0) 1257 254059

Application Solution is a world-wide market leader with 300,000 + users connecting with RemoteWare

Geographical coverage World wide Intellinet

The Court, High Street Harwell, Oxon OX11 0EY Tel: 010235 820011 Fax: 01235 820750 Web: http://www.firstalt.co.uk

or London centres, or at your own site.

Hardware compatibility:

PCs and networks

Tel: 0171 512 0550 Fax: 0171 512 0033

Shared FM: Telecoms and computer equipment can be housed in Telehouse's secure data centre or

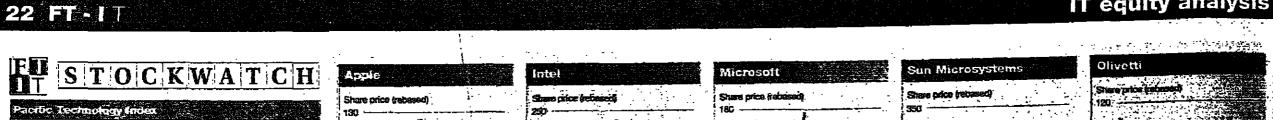
Dedicated FM: DFM can be adopted for telecoms FM services for effective contingency planning across a company's entire operation. Exclusive, secure areas with 24 hour access for

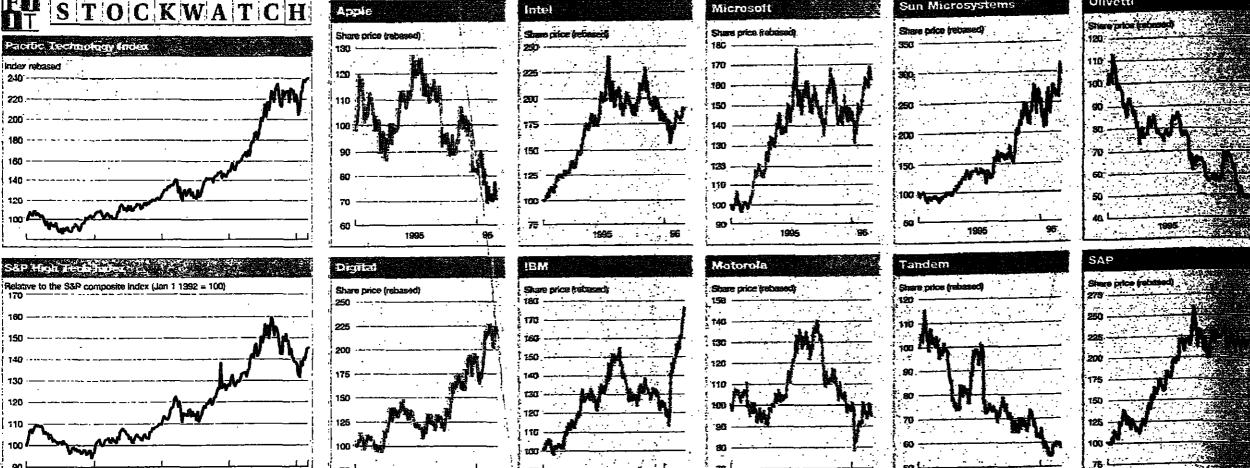
private circuits.

LUROPE

garage and

IT equity analysis







### IT investors are becoming more choosy

Technology shares have generally improved, writes Paul Taylor

arly 1996 has seen continuing volatility in technology shares on Wall Street although, buoyed by generally healthy full-year earnings announcements, most stocks have bounced back

from their early January lows. There is also some evidence that investors are becoming more choosy. Overall technolthe S&P Technology Index. have comfortably out-per-formed the Composite since early January.

Among those rebounding, International Business Machines' shares have risen sharply since mid-January when the computer company reported stronger than expected full-year earnary at \$128%.

Other strongly perform technology shares include Cisco Systems, the networking specialist whose stock has been one of the best performing over the past year. Digital Equipment which has staged a remarkable turnaround and Hewlett-Packard which is continuing to gain share in the personal computer market on both sides of the Atlantic.

Similarly, shares in beleaguered Apple Computer have ing positive statements from Mr Gil Amelio, the company's new chief executive, who has said Apple's problems could be righted and that it would return to profitability in the next year. The shares ended

February at \$28%. The rebound in Apple's share price has also helped boost the Nasdaq, which has a high proportion of well-known

soft and Intel, the US chip maker. Intel's shares, like those of most other semicon-

somewhat since its share in fourth quarter sales, but

Meanwhile, Sun Microsy best performing stocks on Wall Street - its shares have more than tripled in value \$54% at the end of February. One of the factors benefiting

the Internet. However, most Internet service stocks took a, hit last week after AT&T announced it was entering the consumer Internet access market with Netscape Communica tions and Spygiass, two Internet software makers, both slipping. UUNet Technologies, which provides Internet services, also fell sharply following an Bear Stearns analyst's

In Europe, Germany's SAP in Europe, Germany's one software group continues to power ahead. SAP's shares, but his power ahead at Dm226 at the end of February, have Italy's Olivetti group, still and Sorg! PC business, has seen technology companies on its shares lose almost 45 per centilists, including Apple, Microof their value in the past year

### Receive your own copy by post

Subscribe to the FT Review of information Technology and make sure of receiving your own copy by post of Britain's leading IT review. All prices include post and packing:

. <u> </u>	UK	· .	Europe	Rest	of Work
Five issues	£8.50		€14	£26	
Ten issues	£16		£26	250	

For further details, or to place a credit cerd order. phone 0345 125244 (UK callers) or +44 171 538 8288 (overseas callers)

You can also subscribe by cheque or postal order for the above amounts payable to Financial Times Ltd. Please write or sand business card with your payment to:

> Subscriptions Department Number One Southwerk Bridge

The Financial Times Review of Information Technology is published ten times a year. February - July and September to December, inclusive, issues appear with copies of the Financial Times on the first Wednesday of each month, Postel subscriptions are delivered as soon as possible after this date.

man jobless plat highest el since 1948

**9**27

C'rE & Speed -.-